

Value of VQI Participation

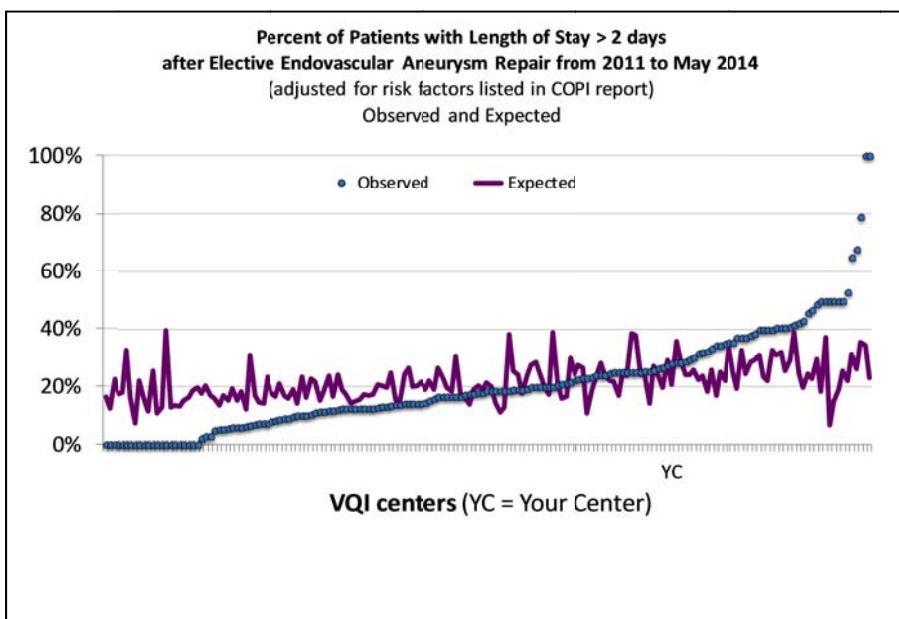
Endovascular Aneurysm Repair and Length of Stay

The Center Opportunity Profile for Improvement (COPI) Reports provide actionable feedback to each center participating in the VQI.

Limiting length of stay (LOS) is a high priority in reducing cost and hospital acquired morbidity. VQI recently analyzed variation in LOS after elective endovascular aortic aneurysm repair (EVAR) across all centers, and determined factors that were independently associated with LOS > 2 days. Each center then received a COPI report which identified factors which they could potentially improve in order to reduce LOS. A multivariable model was used to calculate the expected percentage of patients who should have LOS > 2 days based on risk-adjustment for non-modifiable patient characteristics.

EVAR LOS COPI Report Key Finding

Based on data since 2011, 21% of patients undergoing elective EVAR in VQI had LOS > 2 days. The graph below shows that this observed percentage varied from 0-100% across VQI centers, while the expected rate varied much less. This information allows each center to compare their results with others, and against their expected results.



VQI®

The Vascular Quality Initiative is a distributed network of regional groups that use a Patient Safety Organization and the M2S cloud based system to collect and analyze data to improve the quality of vascular health care.

REGIONAL QUALITY GROUPS

Through regional quality group meetings, VQI participants share data to develop quality improvement projects designed to standardize processes, improve outcomes, and reduce complications and costs.

SVS PSO

The Society for Vascular Surgery Patient Safety Organizations houses the data registry used by VQI and collaborates with the FDA and medical device companies to evaluate the safety and effectiveness of vascular devices.

M2S, INC.

M2S is the technology partner for the SVS PSO, providing the M2S PATHWAYS cloud-based platform for the collection and analysis of clinical quality improvement data.

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Vascular Quality Initiative®

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EVAR LOS COPI Report Key Finding

The COPI report lists all risk factors independently associated with LOS >2 days after EVAR and the percentage of patients with that risk factor for each center in comparison to their region and all VQI centers. Factors highlighted in red indicate the greatest opportunity for improvement at that particular center. In the example below, reducing complication rates and focusing around discharge planning for patients undergoing operations on Monday represent significant opportunity for improvement.

Your Center Opportunity Profile for Improvement (COPI)				
Legend:	Lowest 25th percentile	Reference is for risk factors having more than 2 categories and is the comparison category for the risk factor.		
	Highest 75th percentile			
Excludes patients with procedures not on same day of admission or on weekend, patients admitted from a nursing home, death within 2 days after procedure, patients with prior aortic surgery, and nonelective procedures.				
EVAR: Risk factors for LOS > 2 days		% patients with risk factor		
Patient Characteristics	Odds Ratio	Your center	Your region	VQI
Female	1.7	19%	15%	19%
Person of color	1.9	88%	100%	7%
Age				
Less than 70 years	Reference			
70 to 79 years	1.2	53%	43%	42%
80 years or above	1.8	20%	23%	23%
COPD				
Non-COPD	Reference			
On Medication	1.3	17%	18%	17%
On Home Oxygen	1.4	5%	5%	4%
Procedure details				
Estimated Blood Loss				
<= 150 ml	Reference			
151 - 300 ml	1.3	17%	19%	25%
> 300 ml	2.1	13%	10%	14%
Procedure Time				
<= 120 minutes	Reference			
121 - 180 minutes	1.4	23%	22%	30%
> 180 minutes	2.5	19%	11%	19%
Complex procedure*	1.6	25%	26%	29%
Post-op complications				
Vasopressors Required Post-op	3.4	1.9%	3.8%	4.0%
Myocardial Infarction	14.2	1.9%	0.7%	1.0%
Dysrhythmia	6.8	5.8%	2.1%	2.6%
Post-op CHF	5.7	1.0%	0.7%	0.7%
Respiratory	1.9	1.0%	0.7%	1.4%
Worsened Renal Function	12.1	1.0%	1.7%	2.6%
Leg Ischemia/Emboli	1.9	1.0%	1.1%	0.8%
Wound Complication	6.7	1.0%	0.8%	0.7%
Return to OR	4.5	0.0%	1.9%	1.7%
Day of week				
Monday	1.2	16%	19%	21%
Tuesday/Wednesday/Thursday	Reference			
Friday	1.4	7%	16%	16%

* Complex procedure if hypogastric coil, unplanned graft extension, femoral endarterectomy, fem-fem bypass, ilio-femoral bypass, thromboembolectomy, iliac angioplasty, iliac stent, renal PTA/stent, other arterial reconstruction or open conversion.

Key Facts about the VQI

Nearly **300 academic and community hospitals** currently enrolled

Over **2,000 physicians** participating

16 Regional Quality Improvement Groups across 45 states

Over **165,000 procedures** captured to date (>5,000+ per month)

Over **40 journal articles** based on VQI data

VQI Registries:

- Carotid Artery Stent
- Carotid Endarterectomy
- Endovascular AAA Repair
- Open AAA Repair
- Hemodialysis Access
- Inferior Vena Cava Filter
- Infra-Inguinal Bypass
- Supra-Inguinal Bypass
- Lower Extremity Amputation
- Peripheral Vascular Intervention
- Thoracic and Complex EVAR
- Varicose Vein*

*in development

The Value of Participation – EVAR Length of Stay

Understanding the key factors behind your facility's length of stay for Endovascular Aneurysm Repair offers opportunities to improve care and reduce costs. By participating in the VQI, you will receive periodic COPI reports that support your center's continuing effort to improve the quality, safety, effectiveness and cost of vascular health care.