

# Vascular Quality Initiative®

vascularqualityinitiative.org

## Value of VQI® Participation

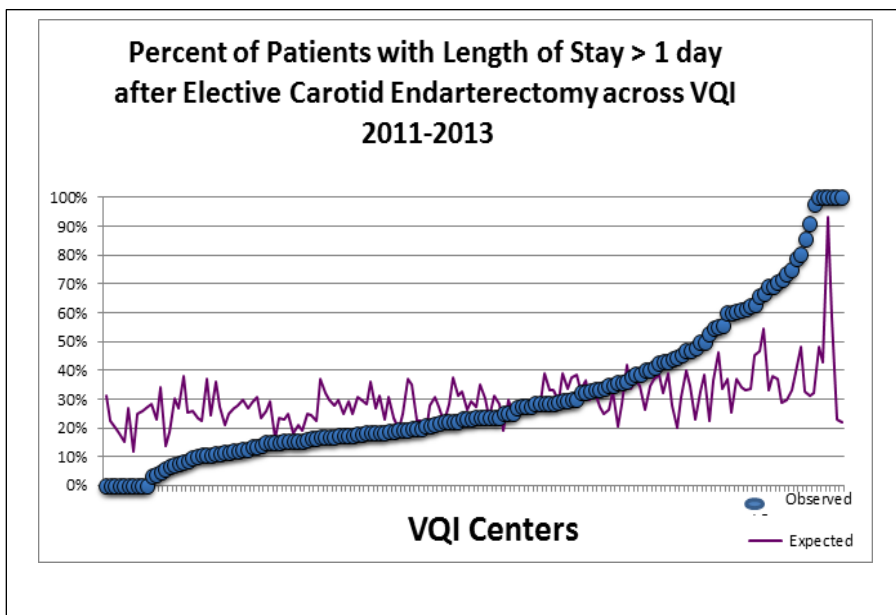
### Reducing Length of Stay after Carotid Endarterectomy (CEA)

*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. VQI recently analyzed variation in LOS after elective Carotid Endarterectomy (CEA) across all centers, and determined factors that were **independently associated with LOS > 1 day**. 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 > 1 day based on risk-adjustment for non-modifiable patient characteristics so that centers could accurately compare themselves anonymously with others.

#### CEA LOS COPI Report Key Finding

Since 2011, 33% of patients undergoing elective CEA in VQI centers (without concomitant procedures or prior CEA) had LOS > 1 day. The graph below shows that this observed percentage varied from 0-100% across VQI centers, while the expected rate adjusted for patient characteristics varied much less.



#### 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.

#### CONTACT US

[vqi@m2s.com](mailto:vqi@m2s.com)  
(603) 298-5509 x331

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## CEA LOS COPI Report Key Finding

The COPI report lists all risk factors independently associated with LOS >1 day after CEA and the percentage of patients with that risk factor for each center in comparison to all other VQI centers. Factors highlighted in red indicate the greatest opportunity for improvement at that particular center. Opportunities for improvement in the example below include **focusing on high use of IV medication for hypotension following the procedure and reducing post-operative complications such as cranial nerve injury or neurologic event.**

## Key Facts about the VQI

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

Over **2,300 physicians** participating

**18 Regional Quality Improvement Groups** across 46 states

Over **191,000 procedures** captured to date (>7,500+ per month)

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

Your Center Opportunity Profile for Improvement (COPI)			
Legend:			
	Lowest 25th Percentile		
	Highest 75th Percentile		
Risk factors for LOS > 1 day	% Patients with Risk Factor		
Patient Characteristics	Odds Ratio	Your Center	VQI Overall Rate
Female	1.4	37%	40%
Person of color	1.3	6%	6%
Age			
< 60 years	1.2	11%	12%
70-79 years	1.2	39%	38%
>= 80 years	1.6	10%	17%
Hypertension	1.3	92%	89%
Diabetes			
Non-Diabetes	1.3	66%	65%
Insulin Dependent Diabetes	1.4	10%	11%
Congestive Heart Failure	1.4	12%	8%
COPD			
Non-COPD	1.5	92%	80%
On Medication	1.1	3%	11%
On Home Oxygen	1.5	1%	1.9%
Creatinine 1.8 or Above	1.3	3%	5.5%
Stress Test done	1.4	48%	37%
Pre-op Stroke	1.2	12%	14%
Procedure details			
General Anesthesia	1.9	99%	91%
IV Med Required for Hypertension	2.9	22%	16%
IV Med Required for Hypotension	3.4	29%	10%
Post-op complications			
Cranial Nerve Injury	1.6	6.9%	3.3%
Any Neurologic Event	9.3	2.8%	1.2%
Reperfusion Symptoms	4.8	0.0%	0.1%
Myocardial Infarction	24.9	2.8%	1.0%
Dysrhythmia	6.1	1.4%	1.6%
Post-op Congestive Heart Failure	8.3	0.7%	0.6%
Return to OR - Bleeding/Other	7.2	1.4%	1.2%
Annualized VQI Surgeon Volume			
<=8	1.7	10%	13%
9 to 12	1.6	11%	15%
13 to 18	1.1	20%	18%
Procedures 19 or more	1.5	59%	54%

## 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

## The Value of Participation – CEA Length of Stay

Understanding the key factors behind your facility's length of stay after major vascular procedures 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.