

Surgical Quality Improvement

American College of Surgeons National Surgical Quality Improvement Program

The American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP®) objectively measures and reports risk-adjusted surgical outcomes based on a defined sampling and abstraction methodology. These outcomes data reflect Cleveland Clinic’s vascular surgery ACS NSQIP performance benchmarked against 499 participating sites.

Vascular Surgery Outcomes

July 2014 – June 2015

Outcome	N	Observed Rate (%)	Expected Rate (%)
30-day mortality	326	1.23 ^a	3.09
30-day morbidity	326	16.56 ^b	11.84
Cardiac event	326	4.29 ^b	2.88
Pneumonia	326	1.23 ^a	2.03
Unplanned intubation	326	1.23 ^a	2.23
Ventilator > 48 hours	325	3.08 ^b	1.82
Deep vein thrombosis/pulmonary embolism	326	0.00 ^a	0.86
Urinary tract infection	326	0.61	1.04
Surgical site infection	325	4.92	3.49
Sepsis	316	5.70 ^b	1.42
Return to operating room	326	9.82	7.56
Readmission	326	12.27	11.62

^aIdentified as a statistical outlier (lower than expected) by the ACS NSQIP hierarchical model

^bIdentified as a statistical outlier (higher than expected) by the ACS NSQIP hierarchical model

In addition to overall vascular ACS NSQIP outcomes data, data specific to open and endovascular lower extremity vascular surgery are provided, benchmarked against 96 and 50 sites, respectively, and data specific to esophagectomy are benchmarked against 155 participating sites.

Open Lower Extremity Vascular Surgery Outcomes

July 2014 – June 2015

Outcome	N	Observed Rate (%)	Expected Rate (%)
30-day morbidity	43	20.93	19.11
Cardiac event	43	6.98	5.67
Pneumonia	43	0.00	0.87
Unplanned intubation	43	0.00	2.28
Ventilator > 48 hours	43	0.00	0.55
Renal failure	43	0.00	0.94
Urinary tract infection	43	0.00	1.55
Surgical site infection	43	11.63	7.73
Sepsis	41	4.88	1.60
Return to operating room	43	20.93	14.72
Readmission	43	20.93	16.59
Amputation	43	0.00 ^a	4.23
Bleeding	43	37.21 ^b	19.73
Myocardial infarction or stroke	43	6.98	2.94
Untreated loss of patency	43	6.98	2.83
Wound	43	27.91 ^b	12.80

^aIdentified as a statistical outlier (lower than expected) by the ACS NSQIP hierarchical model

^bIdentified as a statistical outlier (higher than expected) by the ACS NSQIP hierarchical model

Surgical Quality Improvement

Endovascular Lower Extremity Vascular Surgery Outcomes

July 2014 – June 2015

Outcome	N	Observed Rate (%)	Expected Rate (%)
30-day mortality	69	1.45	1.05
30-day morbidity	69	8.70 ^a	2.98
Cardiac event	69	5.80	1.47
Sepsis	68	0.00	0.84
Return to operating room	69	5.80	6.20
Amputation	69	5.80	2.98
Bleeding	69	7.25	2.98
Major reintervention of the treated arterial segment	69	7.25	3.94
Major untreated loss of patency	69	5.80 ^a	1.15

^aIdentified as a statistical outlier (higher than expected) by the ACS NSQIP hierarchical model

Esophagectomy Outcomes

July 2014 – June 2015

Outcome	N	Observed Rate (%)	Expected Rate (%)
30-day morbidity	63	19.05 ^a	37.31
Unplanned intubation	63	7.94	11.45
Ventilator > 48 hours	63	9.52	12.52
Deep vein thrombosis/pulmonary embolism	63	9.52	5.87
Surgical site infection	63	6.35 ^a	15.33
Sepsis	63	7.94	12.36
Return to operating room	63	11.11	13.40

^aIdentified as a statistical outlier (lower than expected) by the ACS NSQIP hierarchical model

Source: facs.org/quality-programs/acs-nsqip