Table. Selected factors independently associated with log-length of stay (LOS) and 30-day readmission

	Log-LOS		*30-day readmit*			*log-LOS*		*30-day readmit*	
Patient factors	*β (SE)*	P	*OR (95% CI)*	P	*Hospitalization factors*	*β (SE)*	P	*OR (95% CI)*	P
Age (per decade increase)	NS	NS	0.92 (0.86-0.99)	.02	Admitted from ED (ref: routine)	0.11 (0.03)	<.0001	NS	NS
History of heart failure	−0.1 (0.04)	.01	NS	NS	Multiple procedures	0.35 (0.02)	<.0001	1.19 (1.03-1.37)	.02
Chronic lung disease	NS	NS	1.19 (1.03-1.37)	.02	CHF	NS	NS	1.27 (1.43-2.10)	.008
Diabetes without complications	NS	NS	1.35 (1.16-1.56)	<.0001	Pneumonia	0.40 (0.06)	<.0001	NS	NS
Diabetes with complications	0.04 (0.02)	.04	1.25 (1.01-1.54)	.04	Respiratory failure	0.30 (0.06)	<.0001	NS	NS
History of renal failure	0.05 (0.02)	.02	1.28 (1.09-1.51)	.003	Renal failure	0.20 (0.04)	<.0001	NS	NS
Rest pain (ref: claudication)	0.13 (0.02)	<.0001	1.33 (1.11-1.61)	.002	UTI	0.28 (0.05)	<.0001	NS	NS
Foot ulcers (ref: claudication)	0.21 (0.02)	<.0001	1.49 (1.23-1.80)	<.0001	Wound/graft infection	0.43 (0.09)	<.0001	NS	NS
Gangrene (ref: claudication)	0.29 (0.02)	<.0001	1.73 (1.43-2.10)	<.0001	Hemorrhage	0.10 (0.02)	<.0001	NS	NS

CHF, Congestive heart failure; *CI*, confidence interval; *ED*, emergency department; *NS*, not significant; *SE*, standard error; *UTI*, urinary tract infection.

readmitted and 5.8 days for those who were not ($P < .0001$) and was an independent risk factor for 30-day readmission (odds ratio, 1.01; 95% confidence interval, 1.00-1.02 per day). Other significant factors associated with increased LOS or 30-day readmission on multivariable regression are reported in the Table. LOS was primarily driven by the occurrence of postoperative complications, whereas these were generally not independently associated with 30-day readmission. Rather, 30-day readmissions were driven by underlying patient disease and comorbidities. Only 453 (29%) of the readmissions were for definitive complications based on primary diagnosis (International Classification of Diseases, 9 edition, 996-999).

Conclusions: LOS in patients undergoing LEB is driven by the occurrence of postoperative complications, whereas 30-day readmission is driven by underlying patient illness. Additionally, increased LOS is an independent risk factor for readmission. These findings suggest that efforts to reduce LOS and readmission will be complementary. Furthermore, they support the notion that LOS and 30-day readmission rates should both be risk-adjusted.

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A National Survey of AAA-Specific Knowledge in Patients With AAA†

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Objectives: Patient education is a fundamental responsibility of vascular surgeons caring for patients with abdominal aortic aneurysms (AAAs). We sought to evaluate and quantify AAA-specific knowledge in patients who were undergoing AAA surveillance and in patients who had undergone AAA repair.

Methods: In 2013, 1373 patients from six United States institutions were mailed an AAA-specific quality of life and knowledge survey and 1008 (73%) returned completed surveys for analysis. The knowledge domain of the survey consisted of eight questions. An AAA knowledge score was calculated for each patient based on the proportion of questions answered correctly. The scores were compared according to sex, race, and education level. Surveillance and repaired patients were also compared with additional comparison by repair type.

Results: Among 1008 survey respondents, 351 were undergoing AAA surveillance and 657 had undergone AAA repair (endovascular AAA repair [EVAR], 414; open repair, 179; unsure, 64). The majority of patients (85%) reported that their "doctor" was their most important source of AAA information. The "internet" and "other written materials" were each reported as the most important source of information 5% of the time, with "other patients" reported 2% of the time. The mean (standard deviation) AAA knowledge score was 47% ± 23% (range, 0%-100%), with broad variation in the percentage correct between questions (Table): 32% of respondents did not know that larger AAA size increases rupture risk, and 64% did not know that AAA runs in families, only 15% of patients answered six or more of the eight questions correctly, and 23% of patients answered two or fewer questions correctly. AAA knowledge was significantly greater in men compared with women, in whites compared with nonwhites, high school graduates compared with nongraduates, surveillance compared with repaired, and EVAR compared with open repair.

Conclusions: In a national survey of AAA-specific knowledge, patients demonstrated poor understanding of their condition. This may contribute to anxiety and uninformed decision making. The need for increased focus on education by vascular surgeons is a substantial unmet need.

Table. Proportion of survey respondents who answered each abdominal aortic aneurysm (AAA) knowledge question correctly

Variable	*Correct, %*
Typical size threshold for repair 5-6 cm?	79
Larger AAA increases risk of rupture?	68
High likelihood of dying if AAA ruptures?	50
Heavy lifting does not change risk of rupture?	39
Sexual activity does not change risk of rupture?	70
Tobacco increases risk of rupture?	69
High blood pressure increases risk of rupture?	66
AAA runs in families?	36

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Endovascular Lower Extremity Procedures Are Associated With Improved Outcomes Compared to Open Surgical Revascularization in Patients With Chronic Kidney Disease◇

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Objectives: This study compared outcomes in patients with chronic kidney disease undergoing lower extremity revascularization procedures.

Methods: Patients with moderate (glomerular filtration rate, 30-59 mL/min/1.73 m^2) or severe (<30 mL/min/1.73m^2) kidney disease who underwent lower extremity revascularization procedures (n = 4313) were identified from the American College of Surgeons National Surgical Quality Improvement Program database (2011-2012). Postoperative mortality, worsening renal function, respiratory and cardiac events, and combined outcomes were analyzed, with results stratified by degree of kidney disease. Multivariate analyses were used to adjust for differences between groups.

Results: A total of 2682 patients underwent open procedures (OPs), whereas 1466 had endovascular procedures (EPs). Preoperative morbidity between the OP vs EP groups was similar for severe kidney disease (11.6% vs 11.3%, $P = .80$), diabetes (47.8% vs 49.2%, $P = .34$), and

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