

relationship between hospital value and patient value using contemporary and hypothetical payment schemas for aortic surgery.

Methods: Ten-year clinical and inflation-corrected financial data were collected for patients undergoing abdominal aortic aneurysm repair (AAA). Comorbid profile was quantified using a modified Charlson Comorbidity Index (CCI). Patient value [freedom from complication (d)/total charges (\$)] was compared to a novel measure of hospital value [contribution margin (\$)/bed-day (d)] via regression analyses.

Results: 509 patients had complete clinical and financial data to be included in the analysis. The average reimbursement was \$21 k and comparison of patient value (range, 0-19 d/\$10k) to hospital value (range, -36 k to +31 k \$/d) yields a weak correlation ($r^2 = .027$; Fig). Reimbursement schema were hypothesized utilizing base payment (\$5k-\$20k), value multiplier and CCI risk adjustment keeping total expenditure static. With decreasing base payment (\$20k, \$15k, \$10k, \$5k) correlation between hospital value and patient value improved ($r^2 = .116, 0.202, 0.273$ and 0.322 ; \$10k base payment results shown in the Fig).

Conclusions: Contemporary aortic surgery payment fails to reward healthcare systems for patient value. A risk-adjusted value-based payment reconciles this issue and rewards healthcare systems for high value patient care.

Author Disclosures: W. M. Bogey: Nothing to disclose; M. B. Burruss: Nothing to disclose; T. W. Capps: Nothing to disclose; M. Gillikin: Nothing to disclose; M. R. Maness: Nothing to disclose; F. M. Parker: Nothing to disclose; C. S. Powell: Nothing to disclose; M. C. Stoner: Nothing to disclose; J. N. Zink: Nothing to disclose.

PVSS20.

High-quality Outpatient Diabetic Care Improves Amputation-Free Survival After Lower Extremity Revascularization for Critical Limb Ischemia

Benjamin S. Brooke¹, David H. Stone¹, Brian Nolan¹, Randall R. De Martino¹, David C. Goodman², Jack L. Cronenwett¹, Philip P. Goodney¹. ¹Section of Vascular Surgery, Dartmouth-Hitchcock Medical Center, Lebanon, NH; ²Dartmouth Institute for Health Policy & Clinical Practice, Lebanon, NH

Objectives: The impact of outpatient diabetic care on the outcome of lower extremity revascularization (LER) for critical limb ischemia (CLI) is unknown. We hypothesized that outcomes following LER in diabetics with CLI might be improved by high-quality outpatient diabetic care, as indexed by the annual rate of cholesterol (CHOL) and HbA1c testing.

Methods: We studied 84,653 diabetic patients with CLI (52% male, 15% black, mean age 76 yrs) who underwent open and endovascular LER using Medicare claims (2004-2007). The Healthcare Effectiveness Data & Information Set (HEDIS) quality indicators for annual CHOL and HbA1c testing were used as a proxy for quality of diabetic care. We examined relationships between frequency of diabetic testing, amputation-free survival (AFS), and major adverse limb events (MALE) across all US hospital referral regions.

Results: There was significant regional variation in annual HbA1c and CHOL testing across the U.S. (84% highest quartile vs 60% lowest quartile; $P < .01$). Compared with the lowest quartile of diabetic testing, patients undergoing LER in regions with the highest quartile of diabetic testing had significantly better AFS, MALE, and mortality (Table). These benefits persisted more than 2

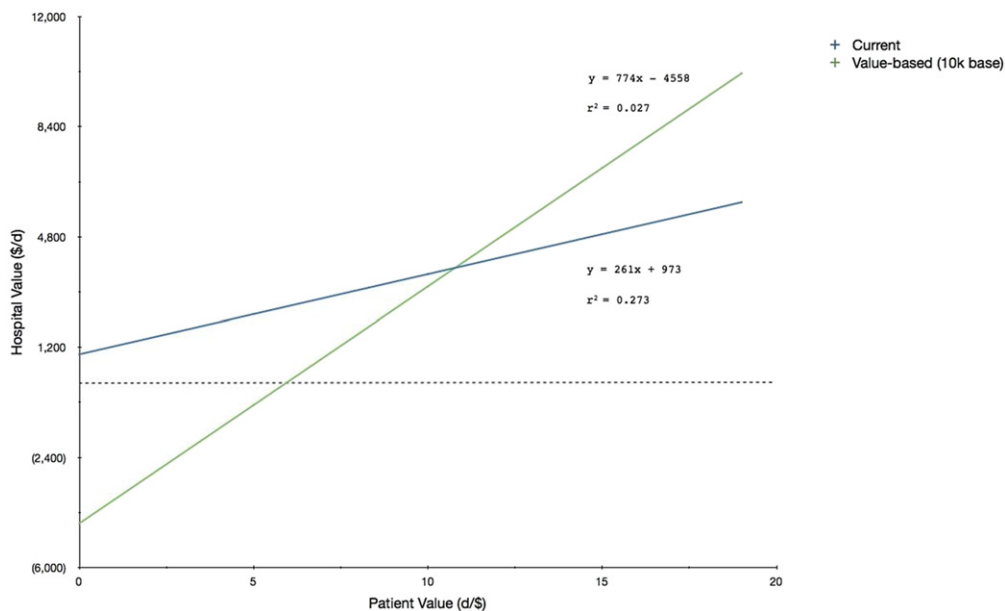


Fig. Regression analysis for current (blue) and value-based (green) aortic surgery reimbursement.

years after LER, even after adjusting for gender, age, race, and comorbidities (Table).

Conclusions: Diabetic patients undergoing LER for CLI in regions with more frequent outpatient testing have significantly better long-term AFS and MALE. Our study underscores the importance of optimal outpatient medical management in diabetics and provides a novel strategy for improving outcomes after LER.

Table. Association Between Diabetic Care Quality and 2-year Outcomes Following LE Revascularization For CLI

2-year outcomes	High-quality diabetic care	Low-quality diabetic care	Adjusted hazard ratio	95% confidence interval	P value
Amputation	9%	11%	0.95	0.93-0.98	<.01
Mortality	29%	31%	0.96	0.93-0.98	<.01
Reintervention	24%	25%	0.95	0.93-0.98	<.01
MALE	29%	31%	0.95	0.92-0.98	<.01
Amputation or Mortality	34%	37%	0.96	0.93-0.99	<.01

Author Disclosures: **B. S. Brooke:** Nothing to disclose; **J. L. Cronewett:** Nothing to disclose; **R. R. De Martino:** Nothing to disclose; **D. C. Goodman:** Nothing to disclose; **P. P. Goodney:** Nothing to disclose; **B. Nolan:** Nothing to disclose; **D. H. Stone:** Nothing to disclose.

PVSS21.

Outcomes Following Open and Endovascular Revascularization for Chronic Mesenteric Ischemia

Gabriela Velazquez, Salvatore T. Scali, Adam Beck, Robert J. Fezor, Scott A. Berceci, Thomas Huber, Catherine K. Chang. Surgery, University of Florida, Gainesville, Fla

Objectives: Endovascular therapy for chronic mesenteric ischemia (CMI) has been used increasingly as first-line therapy; however concerns over durability remain. This study was performed to compare outcomes following open and endovascular revascularization in CMI patients.

Methods: Retrospective analysis was performed of all patients treated for CMI at one medical center from 2002-2012. Survival and reintervention were estimated with Kaplan Meier methodology. Propensity scores to estimate likelihood of open vs endovascular revascularization were determined with logistic regression.

Results: 111 patients underwent treatment for CMI with equal open (55) and endovascular (56) revascularization. Median follow-up was 12.8 months (range, 0.1-105). Open patients were younger (65 vs 72 years; $P = .001$), had less coronary artery disease (42 vs 64%; $P = .02$), and more prior interventions (29 vs 11%; $P = .02$). Open patients had higher perioperative morbidity (60 vs 11%; $P < .001$) and mortality (13 vs 4%; $P = .08$), but overall survival was not different between groups ($P = .2$; Fig). Within all matched propensity quartiles, there was no significant difference in survival between open and endovascular groups. Symptom recurrence (65 vs 18%; $P = .02$) and rate of reintervention (44 vs 2%; $P = .003$) at 3 years were higher in endovascular compared to open patients.

Conclusions: Endovascular therapy for CMI is associated with lower perioperative morbidity and mortality but also greater symptom recurrence and reintervention. Open mesenteric revascularization may be the best option for patients with reasonable perioperative risk.

Author Disclosures: **A. Beck:** Cook, Consulting fees or other remuneration (payment) Cook, Research Grants-Medtronic, Consulting fees or other remuneration (payment) Medtronic, Research Grants-Gore, Research Grants-Lombard, Research Grants; **S. A. Berceci:** Nothing to disclose; **C. K. Chang:** Nothing to disclose; **R. J. Fezor:** Cook, Consulting fees or other remuneration (payment) Cook, Research Grants Cook, Speaker's bureau-Medtronic, Consulting fees or other remuneration (payment) Medtronic, Research Grants; **T. Huber:** Nothing to disclose; **S. T. Scali:** Nothing to disclose; **G. Velazquez:** Nothing to disclose.

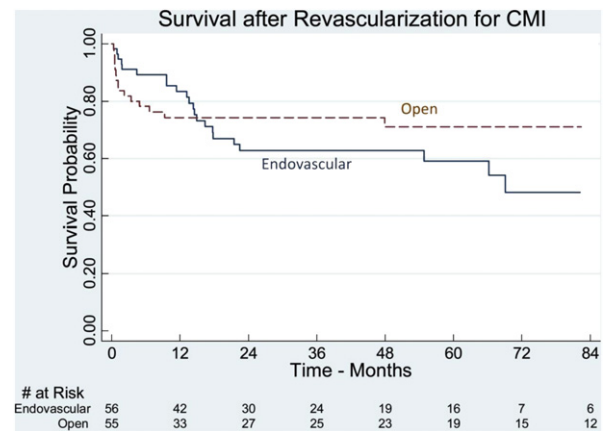


Fig.

PVSS22.

Creating a Vascular Skills Examination: Three New Validated Assessment Models

Malachi G. Sheahan¹, Claudie Sheahan¹, Jodi Gerdes¹, Jean Bismuth³, Jason Lee⁵, Murray Shames², Julia Wilkinson¹, John Eidt⁴. ¹Louisiana State University Health Sciences Center, Marrero, La; ²University of South Florida, Tampa, Fla; ³The Methodist Hospital, Houston, Tex; ⁴Greenville Health System University Medical Center, Greenville, SC; ⁵Stanford University Medical Center, Stanford, Calif

Objectives: While a standardized approach has been taken to assess the cognitive skills of vascular trainees in the United States, no formal system exists to test technical ability. Our goals were to develop and validate three vascular skill assessment models, as well as to train assessors to deliver consistent evaluations.

Methods: Twenty surgical trainees (range: 4th year student-PGY 5 resident) completed three vascular skill assessment models, each under the observation of two experienced assessors blinded to their training level. Two models were designed to simulate an end-to-end