

TABLE E-1 Comorbid Conditions According to the System of Elixhauser et al.^{30*}

-AIDS	-Diabetes (complicated)	-Paralysis
-Alcohol Abuse	-Diabetes (uncomplicated)	-Peptic Ulcer Disease
-Anemia (from deficiencies)	-Drug Abuse	-Peripheral Vascular Disorders
-Anemia (from blood loss)	-Fluid and Electrolyte Disorders	-Psychoses
-Cardiac Arrhythmias	-Hypertension	-Pulmonary Circulation Disorders
-Cancer (metastatic)	-Hypothyroidism	-Pulmonary Disease (chronic)
-Coagulopathy	-Liver Disease	-Renal Failure
-Collagen Vascular Diseases	-Lymphoma	-Solid Tumor (without metastasis)
-Congestive Heart Failure	-Neurological Disorders (other)	-Valvular Heart Disease
-Depression	-Obesity	-Weight Loss

*AIDS = acquired immunodeficiency syndrome.

TABLE E-2 Predictors of Adverse Outcomes for Major Joint Replacement Included in the Final Regression Model*

Risk Factor	Odds Ratio (95% Confidence Interval)	P Value
Demographics		
Age		
70-74	1.01 (0.95-1.08)	0.76
75-79	1.02 (0.95-1.09)	0.58
80-84	1.00 (0.92-1.09)	0.97
85-89	0.99 (0.89-1.11)	0.91
>90	0.99 (0.80-1.22)	0.93
Race		
Black	1.28 (1.11-1.48)	<0.001
Female sex	0.85 (0.81-0.90)	<0.001
Comorbid conditions		
Congestive heart failure	1.90 (1.75-2.08)	<0.001
Neurologic disease	1.62 (1.42-1.84)	<0.001
Chronic renal failure	2.50 (2.08-2.99)	<0.001
Chronic obstructive pulmonary disease	1.27 (1.18-1.38)	<0.001
Arrhythmia	1.43 (1.32-1.54)	<0.001
Liver disease	1.62 (1.21-2.18)	0.001
Weight loss	2.95 (2.30-3.79)	<0.001
Valvular heart disease	1.31 (1.16-1.48)	<0.001
Hypothyroidism	0.87 (0.80-0.95)	0.002
Coagulopathy	2.36 (2.02-2.77)	<0.001
Lymphoma	1.77 (1.33-2.34)	<0.001
Pulmonary circulatory disease	1.78 (1.34-2.35)	<0.001
Peripheral vascular disease	1.21 (1.02-1.44)	0.02
Electrolyte Disorder	1.97 (1.78-2.18)	<0.001
Paralysis	2.96 (1.94-4.50)	<0.001
Psychosis	1.40 (1.13-1.73)	0.002
Metastatic cancer	3.33 (2.31-4.81)	<0.001
High-risk conditions		
Cancer with bone involvement	1.48 (1.01-2.18)	0.05
Femur fracture	1.68 (1.47-1.94)	<0.001
Previous THR	1.67 (1.43-1.94)	<0.001
Degenerative disease as indication for THR	0.76 (0.69-0.85)	<0.001
Knee infection as indication for TKR	3.69 (3.00-4.53)	<0.001
Admission source		
Admission as transfer from another acute care facility	1.73 (1.34-2.23)	<0.001
Type of surgical procedure		
Primary THR	1.51 (1.36-1.67)	<0.001
Year of discharge (compared with 1999)	1.09 (1.07-1.11)	<0.001
Volume of total joint replacements	0.99 (0.99-0.99)	0.002

*In the risk adjustment model, age was expressed as five indicator variables (70-74, 75-79, 80-84, 85-89, 90 years and older), with a referent category of 65-69 years. Race was expressed with use of two indicator variables for patients who were classified in the database as either "black" or "Hispanic." Surgical priority was expressed with use of two indicator variables for emergent and urgent admissions, relative to elective admissions. Admission source was expressed as indicator variables for patients transferred to the hospital from another acute-care facility and patients admitted through the emergency department, with a referent category that primarily included patients referred by a physician. THR = total hip replacement, and TKR = total knee replacement.