

Fig. E-1

Locally weighted scatterplot smoothing (LOESS) estimates of hospital-reported risk-adjusted rates of surgical site infections (SSI) following hip replacement, by hospital case volume. The fitted lines indicate the mean; the shaded areas indicate the 95% confidence intervals.

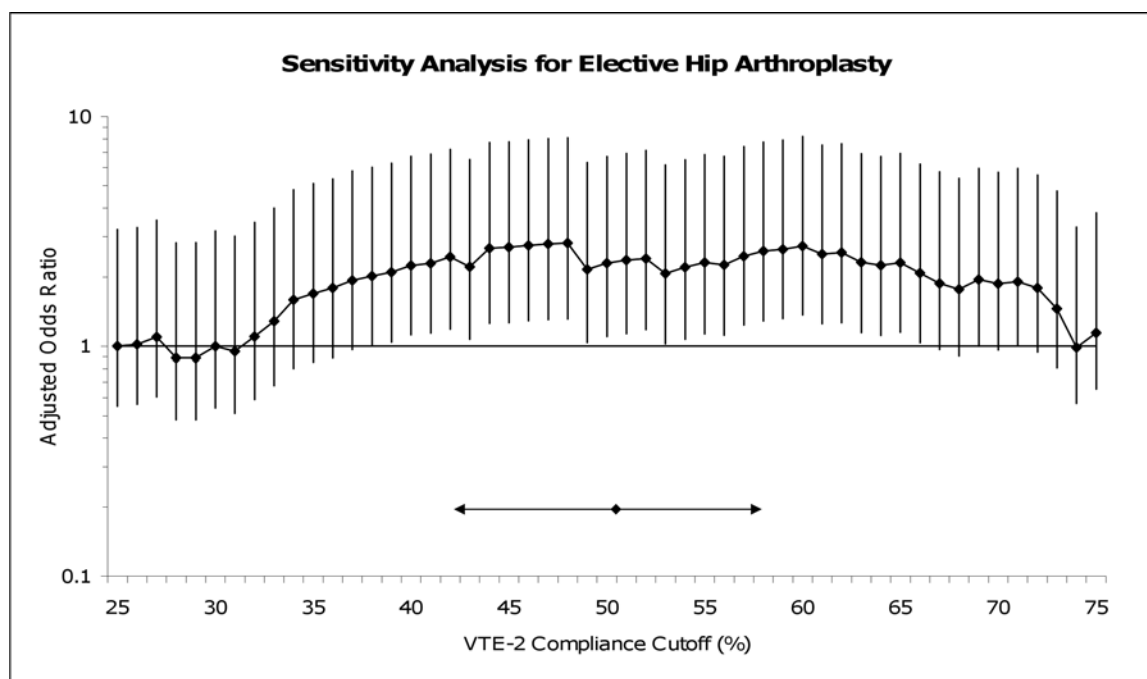


Fig. E-2

Sensitivity analysis of cross-measure effect for patients with elective hip arthroplasty. Adjusted odds ratios of infections and 95% confidence intervals were calculated between two groups of hospitals with a cutoff point for SCIP VTE-2 compliance changing from 25% to 75%. The adjusted odds ratios were robust from approximately 42% to approximately 58% (within 15% of the median [50%]) as indicated by the arrows.

TABLE E-1 Postoperative Infections by Adherence to SCIP Prevention Measures and Volume

Measure	Range	Infection Rate (95% Confidence Interval)
SCIP INF-1 adherence*		
Less compliant group	50.0%-95.1%	1.17% (0.97%-1.41%)
Highly compliant group	95.2%-100%	1.31% (1.09%-1.59%)
SCIP INF-2 adherence*		
Less compliant group	81.3%-99.7%	1.12% (0.90%-1.40%)
Highly compliant group	99.8%-100%	1.31% (1.11%-1.55%)
SCIP INF-3 adherence*		
Less compliant group	58.3%-92.9%	1.30% (1.08%-1.57%)
Highly compliant group	93.0%-100%	1.18% (0.98%-1.42%)
SCIP INF-6 adherence*		
Less compliant group	42.0%-99.4%	1.09% (0.87%-1.36%)
Highly compliant group	99.5%-100%	1.33% (1.13%-1.57%)
SCIP VTE-1 adherence*		
Less compliant group	69.2%-98.9%	0.95% (0.77%-1.17%)
Highly compliant group	99.0%-100%	1.52% (1.29%-1.80%)
SCIP VTE-2 adherence*		
Less compliant group	62.9%-96.9%	0.93% (0.76%-1.14%)
Highly compliant group	97.0%-100%	1.60% (1.35%-1.91%)
Hospital case volume*		
Less compliant group	20-102	1.63% (1.25%-2.11%)
Highly compliant group	103-645	1.14% (0.98%-1.33%)

*Adherence was based on whether hospital compliance was lower or higher than the median value of respective SCIP measure compliance or case volume. INF-1 indicates prophylactic antibiotic received within one hour prior to surgical incision; INF-2, that prophylactic antibiotics recommended for specific surgical procedure were given; INF-3, that prophylactic antibiotics discontinued within twenty-four hours after surgery end time; INF-6, that appropriate surgical site hair removed or surgical site hair removal not required; VTE-1, that patients having surgery had recommended VTE prophylaxis ordered; and VTE-2, that patients having surgery received appropriate VTE prophylaxis within twenty-four hours before surgery to twenty-four hours after surgery.