



Fig. E-1 Receiver operating characteristic (ROC) curve of the prognostic algorithm for failure of a single surgical debridement for acute septic arthritis. The area under the curve was calculated to be 0.79, signifying good-to-excellent prognostic capability for the identified risk factors for an adult experiencing a failure of a single surgical debridement for acute septic arthritis.

TABLE E-1 Algorithm for Probability of Failure of a Single Surgical Debridement, with +1 Point for Each Risk Factor*	
Risk Factor Scale	Predicted Probability of Failure of a Single Surgery (95% Confidence Interval)
0	2% (1% to 9%)
1	8% (3% to 18%)
2	26% (17% to 36%)
3	57% (45% to 68%)
4	84% (68% to 93%)
5	95% (83% to 99%)

*Risk factors = a history of inflammatory arthropathy, *Staphylococcus aureus* infection, a synovial-fluid nucleated cell count of $>85.0 \times 10^9$ cells/L, a history of diabetes, and the involvement of a large joint (shoulder, hip, or knee).

TABLE E-2 Statistical Analysis of Risk Factor Points and Failure of a Single Surgery*								
Points	True Positives	False Negatives	False Positives	True Negatives	Sensitivity	Specificity	PPV	NPV
≥0	50	0	82	0	100%	0%	38%	—
≥1	50	0	29	53	100%	65%	63%	100%
≥2	50	0	26	56	100%	68%	66%	100%
≥3	39	11	8	74	78%	90%	83%	87%
≥4	14	36	3	79	28%	96%	82%	69%
≥5	2	48	0	82	4%	100%	100%	63%

*The total number of study patients with true positives, false negatives, false positives, and true negatives using the six-point scale is provided for each possible threshold on the risk-factor scale. The sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) were calculated using standard formulae for each risk-factor point.