

Appendix

TABLE E-1 Multivariable Linear Regression Modeling of the Impact of Baseline Patient and Operative Factors on 1 to 2-Year Outcomes After Total Ankle Arthroplasty, Excluding BMI and Smoking Status*†

Patient and Operative Factors	SMFA Function (N = 664)	SMFA Bother (N = 663)	SF-36 PCS (N = 606)	SF-36 MCS (N = 619)	VAS (N = 651)
Change score‡	-19.9 ± 12.8	-22.9 ± 17.5	25.6 ± 18.4	13.9 ± 17.5	-55.6 ± 28.8
Preoperative score (change per point)					
Mean§	-0.5 (-0.5 to -0.4)	-0.6 (-0.6 to -0.5)	-0.3 (-0.4 to -0.2)	-0.5 (-0.6 to -0.5)	-0.9 (-1 to -0.9)
P value	<0.001#	<0.001#	<0.001#	<0.001#	<0.001#
Age (change per year)					
Mean§	-0.1 (-0.2 to 0.1)	-0.1 (-0.3 to 0)	0.1 (-0.1 to 0.3)	0.1 (0 to 0.3)	-0.1 (-0.3 to 0.1)
P value	0.34	0.185	0.40	0.073	0.183
Female sex					
Mean§	0.3 (-1.7 to 2.3)	1.6 (-0.8 to 4)	-2.4 (-5.5 to 0.7)	-0.2 (-2.7 to 2.3)	1.7 (-1.7 to 5)
P value	0.77	0.194	0.135	0.89	0.33
Caucasian race					
Mean§	-0.3 (-4.3 to 3.7)	-1.8 (-6.8 to 3.3)	-0.2 (-6.5 to 6.2)	1.2 (-4 to 6.4)	1.2 (-5.7 to 8.1)
P value	0.88	0.49	0.96	0.65	0.74
ASA (change per point)					
Mean§	1.9 (0.2 to 3.6)	2.3 (0.2 to 4.4)	-4 (-6.7 to -1.2)	-3.1 (-5.3 to -1)	0.9 (-1.9 to 3.8)
P value	0.025#	0.028#	0.004#	0.005#	0.52
Charlson-Deyo score (change per point)					
Mean§	-0.2 (-0.9 to 0.4)	-0.1 (-0.9 to 0.7)	-0.1 (-1.2 to 0.9)	0 (-0.8 to 0.9)	-0.7 (-1.8 to 0.4)
P value	0.52	0.80	0.78	0.93	0.22
Prior surgery					
Mean§	0 (-1.8 to 1.9)	-0.7 (-3 to 1.6)	1.7 (-1.3 to 4.8)	0.3 (-2.2 to 2.7)	3.5 (0.2 to 6.7)
P value	0.97	0.56	0.27	0.83	0.035#
Any additional procedure at primary implantation					
Mean§	-1 (-3.6 to 1.7)	-0.3 (-3.6 to 3)	0.1 (-4.2 to 4.4)	0.4 (-3.1 to 3.9)	-0.4 (-5 to 4.1)
P value	0.48	0.85	0.96	0.83	0.85
No. of additional procedures (change per procedure)					
Mean§	0.1 (-0.8 to 1)	0 (-1.2 to 1.1)	-0.2 (-1.7 to 1.3)	0 (-1.2 to 1.2)	0.5 (-1.1 to 2)
P value	0.86	0.95	0.82	0.98	0.57
Type of implant					
Inbone					
Mean§	-1.9 (-4.9 to 1)	-1.3 (-5 to 2.5)	-0.6 (-5.4 to 4.2)	0.9 (-2.9 to 4.7)	-0.1 (-5.2 to 5.1)

P value	0.20	0.50	0.82	0.64	0.98
Infinity					
Mean§	0.3 (-4.7 to 5.3)	1.4 (-4.8 to 7.7)	0.1 (-8.2 to 8.4)	-3.8 (-10.2 to 2.6)	-4.1 (-12.7 to 4.6)
P value	0.90	0.66	0.98	0.25	0.36
Salto Talaris					
Mean§	-0.1 (-3.5 to 3.2)	-0.6 (-4.8 to 3.6)	-1.2 (-6.6 to 4.2)	-0.2 (-4.6 to 4.2)	-1.6 (-7.4 to 4.2)
P value	0.94	0.79	0.67	0.93	0.59
Scandinavian Total Ankle Replacement					
Mean§	1.8 (-1.5 to 5)	0.4 (-3.6 to 4.5)	1.7 (-3.7 to 7)	3.1 (-1.2 to 7.3)	5.7 (0.1 to 11.4)
P value	0.29	0.84	0.54	0.16	0.048#
Simultaneous bilateral arthroplasty					
Mean§	-5.7 (-13.8 to 2.3)	-7.6 (-17.7 to 2.5)	13.6 (1.1 to 26.1)	2.3 (-7.9 to 12.5)	-2.7 (-16.6 to 11.1)
P value	0.161	0.140	0.033#	0.66	0.70
Staged bilateral arthroplasty					
Mean§	5.6 (0.9 to 10.3)	6.3 (0.4 to 12.2)	-4.5 (-12.1 to 3.2)	-5.8 (-11.9 to 0.4)	-6.5 (-14.5 to 1.4)
P value	0.020#	0.037#	0.25	0.065	0.108
Length of stay (change per day)					
Mean§	0.9 (-0.3 to 2.1)	1.2 (-0.2 to 2.7)	-1.7 (-3.6 to 0.2)	-1.8 (-3.3 to -0.3)	2 (0 to 4)
P value	0.127	0.097	0.073	0.021#	0.055
Follow-up (change per year)					
Mean§	-2 (-3.8 to -0.1)	-2.5 (-4.8 to -0.2)	4.2 (1.2 to 7.2)	1.1 (-1.3 to 3.5)	-3.2 (-6.4 to 0)
P value	0.035#	0.036#	0.006#	0.36	0.047#
Depression					
Mean§	3 (0.7 to 5.2)	4.1 (1.3 to 6.9)	-6.8 (-10.5 to -3)	-6.1 (-9.2 to -3.1)	5.4 (1.5 to 9.2)
P value	0.010#	0.005#	<0.001#	<0.001#	0.007#
Deficiency anemia					
Mean§	2.8 (-0.2 to 5.7)	NA	NA	NA	NA
P value	0.064	NA	NA	NA	NA

*Decreased SMFA function and bother and VAS pain indicate clinical improvement, and increased SF-36 PCS and MCS subscores indicate improvement. SMFA, SF-36, and VAS range from 0 to 100 points. †NA = not available. ‡The values are given as the mean and the standard deviation. §The values are given as the mean, with the 95% CI in parentheses. #Significant.