

**Table i.** SF-36 mental subscales and Mental Component Summary – results from mixed models for repeated measures with adjustment for multiple testing.

Outcome	Visit	n	Mean (95% CI)	Change from baseline (95% CI)	p-value*
Norm-based SF-36 Vitality Scale	Baseline	279	44.0 (42.6 to 45.4)		
	1 mth	255	44.6 (43.2 to 46.1)	0.6 (-1.0 to 2.2)	0.680
	6 mths	212	48.5 (47.1 to 50.0)	4.5 (2.9 to 6.2)	< 0.001
	12 mths	193	48.1 (46.5 to 49.7)	4.1 (2.2 to 5.9)	< 0.001
Norm-based SF-36 Social Functioning Scale	Baseline	281	35.4 (33.7 to 37.0)		
	1 mth	258	33.8 (32.1 to 35.5)	-1.6 (-3.6 to 0.4)	0.159
	6 mths	212	40.8 (39.1 to 42.5)	5.5 (3.3 to 7.6)	< 0.001
	12 mths	193	42.9 (41.1 to 44.6)	7.5 (5.2 to 9.8)	< 0.001
Norm-based SF-36 Role Emotional Scale	Baseline	273	33.4 (31.5 to 35.2)		
	1 mth	256	32.5 (30.5 to 34.5)	-0.9 (-3.1 to 1.3)	0.672
	6 mths	212	38.0 (36.0 to 40.0)	4.6 (2.0 to 7.3)	< 0.001
	12 mths	192	38.8 (36.7 to 40.8)	5.4 (2.9 to 7.9)	< 0.001
Norm-based SF-36 Mental Health Scale	Baseline	279	41.0 (39.6 to 42.5)		
	1 mth	255	42.8 (41.3 to 44.2)	1.7 (0.2 to 3.2)	0.024
	6 mths	212	45.9 (44.5 to 47.3)	4.8 (3.2 to 6.5)	< 0.001
	12 mths	192	46.1 (44.5 to 47.7)	5.0 (3.1 to 6.9)	< 0.001
SF-36 MCS	Baseline	271	42.5 (40.8 to 44.2)		
	1 mth	253	43.1 (41.4 to 44.8)	0.6 (-1.3 to 2.4)	0.792
	6 mths	210	47.1 (45.4 to 48.7)	4.5 (2.6 to 6.5)	< 0.001
	12 mths	191	46.7 (45.0 to 48.5)	4.2 (2.2 to 6.3)	< 0.001

Results from mixed models for repeated measures with an unstructured covariance (patient level). Presented values are least-square (LS) means and difference in LS means.

\*p-value for mean change from baseline.

p-values and CIs for change scores have been adjusted for multiple testing at different timepoints with simulation-based approach.

MCS, Mental Component Summary; SF-36, 36-Item Short-Form Health Survey questionnaire.

**Table ii.** Results from mixed models for repeated measures comparing 36-Item Short-Form Health Survey questionnaire mental subscales and Mental Component Scales according to origin of infection.

Variable	Visit	Periprosthetic joint infection				Osteomyelitis/fracture-related infection				p-value†
		n	Mean (95% CI)	Change (95% CI)	p-value*	n	Mean (95% CI)	Change (95% CI)	p-value*	
Norm-based SF-36 Vitality Scale	Baseline	79	39.9 (37.3 to 42.4)			200	45.7 (44.1 to 47.3)			< 0.001
	1 mth	72	38.6 (36.0 to 41.1)	-1.3 (-3.8 to 1.1)	0.295	183	47.1 (45.4 to 48.7)	1.3 (-0.2 to 2.9)	0.083	< 0.001
	6 mths	53	44.3 (41.6 to 47.1)	4.5 (1.7 to 7.2)	0.002	159	50.2 (48.6 to 51.9)	4.5 (2.9 to 6.1)	< 0.001	< 0.001
	12 mths	49	44.6 (41.6 to 47.7)	4.8 (1.7 to 7.8)	0.002	144	49.5 (47.7 to 51.3)	3.8 (2.0 to 5.6)	< 0.001	0.008
Norm-based SF-36 Social Functioning Scale	Baseline	79	32.9 (29.7 to 36.0)			202	36.4 (34.4 to 38.4)			0.060
	1 mth	72	30.8 (27.6 to 33.9)	-2.1 (-5.3 to 1.2)	0.207	186	35.0 (33.0 to 37.0)	-1.4 (-3.4 to 0.6)	0.160	0.027
	6 mths	53	37.0 (33.7 to 40.4)	4.2 (0.6 to 7.7)	0.021	159	42.2 (40.3 to 44.2)	5.8 (3.7 to 7.9)	< 0.001	0.009
	12 mths	49	38.9 (35.5 to 42.3)	6.1 (2.4 to 9.8)	0.001	144	44.3 (42.3 to 46.3)	7.9 (5.7 to 10.1)	< 0.001	0.008
Norm-based SF-36 Role Emotional Scale	Baseline	79	33.3 (29.9 to 36.8)			194	33.4 (31.2 to 35.6)			0.951
	1 mth	71	29.7 (26.0 to 33.4)	-3.6 (-7.0 to -0.1)	0.042	185	33.6 (31.3 to 35.9)	0.2 (-2.0 to 2.3)	0.871	0.082
	6 mths	53	32.5 (28.7 to 36.4)	-0.8 (-5.0 to 3.4)	0.714	159	39.9 (37.7 to 42.2)	6.5 (4.0 to 9.0)	< 0.001	0.001
	12 mths	49	35.5 (31.6 to 39.4)	2.2 (-1.8 to 6.2)	0.287	143	39.9 (37.6 to 42.3)	6.5 (4.1 to 8.9)	< 0.001	0.057
Norm-based SF-36 Mental Health Scale	Baseline	79	38.7 (35.9 to 41.5)			200	42.0 (40.3 to 43.8)			0.047
	1 mth	72	41.0 (38.3 to 43.8)	2.3 (-0.1 to 4.8)	0.063	183	43.5 (41.7 to 45.2)	1.5 (-0.1 to 3.0)	0.059	0.139
	6 mths	53	42.4 (39.7 to 45.0)	3.7 (1.0 to 6.3)	0.007	159	47.2 (45.6 to 48.8)	5.2 (3.6 to 6.8)	< 0.001	0.002
	12 mths	49	42.8 (39.7 to 45.9)	4.1 (1.0 to 7.2)	0.011	143	47.3 (45.4 to 49.2)	5.3 (3.4 to 7.2)	< 0.001	0.015
SF-36 MCS	Baseline	78	41.1 (38.0 to 44.2)			193	43.1 (41.1 to 45.1)			0.278
	1 mth	71	40.6 (37.4 to 43.8)	-0.4 (-3.4 to 2.5)	0.765	182	44.1 (42.0 to 46.1)	1.0 (-0.9 to 2.8)	0.297	0.075
	6 mths	53	43.4 (40.2 to 46.5)	2.3 (-0.8 to 5.4)	0.149	157	48.4 (46.5 to 50.3)	5.3 (3.4 to 7.2)	< 0.001	0.007
	12 mths	49	43.9 (40.6 to 47.3)	2.9 (-0.5 to 6.2)	0.094	142	47.8 (45.8 to 49.8)	4.7 (2.7 to 6.7)	< 0.001	0.055

Results from mixed models for repeated measures with an unstructured covariance (patient level). Presented values are least-square (LS) means and difference in LS means.

\*p-value for comparison of within group change from baseline.

†p-value for comparison of mean value between groups at each follow-up.

MCS, Mental Component Summary; SF-36, 36-Item Short-Form Health Survey questionnaire.

**Table iii.** Results from mixed models for repeated measures comparing 36-Item Short-Form Health Survey questionnaire mental subscales and Mental Component Summary according to methicillin-resistant *Staphylococcus aureus* vs methicillin-sensitive *Staphylococcus aureus* infection.

Variable	Visit	MRSA (i.e. MRSA only or MRSA + MSSA)				MSSA (i.e. MSSA only)				p-value†
		n	Mean (95% CI)	Change (95% CI)	p-value*	n	Mean (95% CI)	Change (95% CI)	p-value*	
Norm-based SF-36 Vitality Scale	Baseline	78	41.2 (38.6 to 43.8)			198	45.0 (43.4 to 46.6)			0.015
	1 mth	71	43.1 (40.4 to 45.9)	1.9 (-0.5 to 4.4)	0.123	181	45.3 (43.6 to 47.0)	0.3 (-1.3 to 1.8)	0.731	0.189
	6 mths	55	46.8 (44.0 to 49.6)	5.6 (2.9 to 8.3)	< 0.001	156	49.2 (47.5 to 50.9)	4.2 (2.6 to 5.9)	< 0.001	0.140
	12 mths	49	46.6 (43.5 to 49.7)	5.4 (2.4 to 8.5)	< 0.001	142	48.6 (46.7 to 50.5)	3.6 (1.8 to 5.4)	< 0.001	0.283
Norm-based SF-36 Social Functioning Scale	Baseline	77	32.5 (29.3 to 35.7)			201	36.3 (34.3 to 38.2)			0.048
	1 mth	72	32.4 (29.2 to 35.6)	-0.1 (-3.3 to 3.1)	0.943	183	34.3 (32.3 to 36.3)	-2.0 (-4.0 to 0.0)	0.055	0.316
	6 mths	55	38.4 (35.1 to 41.7)	5.9 (2.4; 9.4)	0.001	156	41.8 (39.8 to 43.8)	5.5 (3.4 to 7.6)	< 0.001	0.090
	12 mths	49	39.1 (35.7 to 42.6)	6.6 (2.9 to 10.3)	< 0.001	142	44.2 (42.2 to 46.2)	7.9 (5.7 to 10.1)	< 0.001	0.013
Norm-based SF-36 Role Emotional Scale	Baseline	77	30.7 (27.2 to 34.2)			193	34.3 (32.1 to 36.5)			0.084
	1 mth	70	30.6 (26.8 to 34.3)	-0.1 (-3.6 to 3.4)	0.949	183	33.3 (30.9 to 35.6)	-1.1 (-3.2 to 1.1)	0.339	0.235
	6 mths	55	35.4 (31.6 to 39.3)	4.8 (0.5 to 9.0)	0.028	156	39.1 (36.7 to 41.4)	4.8 (2.2 to 7.3)	< 0.001	0.115
	12 mths	49	35.8 (31.8 to 39.7)	5.1 (1.0 to 9.1)	0.014	141	39.9 (37.6 to 42.3)	5.6 (3.2 to 8.1)	< 0.001	0.074
Norm-based SF-36 Mental Health Scale	Baseline	78	38.9 (36.1 to 41.7)			198	41.7 (40.0 to 43.5)			0.092
	1 mth	71	41.9 (39.1 to 44.7)	3.0 (0.6 to 5.4)	0.015	181	42.9 (41.2 to 44.7)	1.2 (-0.3 to 2.7)	0.127	0.553
	6 mths	55	44.1 (41.4 to 46.8)	5.2 (2.6 to 7.9)	< 0.001	156	46.5 (44.8 to 48.1)	4.7 (3.2 to 6.3)	< 0.001	0.149
	12 mths	49	43.6 (40.5 to 46.8)	4.7 (1.6 to 7.9)	0.003	141	46.9 (45.0 to 48.8)	5.2 (3.3 to 7.0)	< 0.001	0.083
SF-36 MCS	Baseline	77	40.1 (37.0 to 43.3)			191	43.3 (41.3 to 45.3)			0.097
	1 mth	70	41.9 (38.6 to 45.2)	1.7 (-1.2 to 4.7)	0.244	180	43.5 (41.4 to 45.5)	0.2 (-1.7 to 2.0)	0.844	0.423
	6 mths	55	45.1 (42.0 to 48.3)	5.0 (1.9 to 8.1)	0.002	154	47.7 (45.8 to 49.7)	4.5 (2.6 to 6.4)	< 0.001	0.167
	12 mths	49	44.5 (41.1 to 47.9)	4.4 (1.0 to 7.7)	0.011	140	47.6 (45.5 to 49.6)	4.3 (2.2 to 6.3)	< 0.001	0.130

Results from mixed models for repeated measures with an unstructured covariance (patient level). Presented values are least-square (LS) means and difference in LS means.

\*p-value for comparison of within group change from baseline.

†p-value for comparison of mean value between groups at each follow-up

MCS, Mental Component Summary; MRSA, methicillin-resistant *Staphylococcus aureus*; MSSA, methicillin-sensitive *Staphylococcus aureus*; SF-36, 36-Item Short-Form Health Survey questionnaire.

**Table iv.** Spearman correlation between Katz Index of Independence in Activities of Daily Living sum score and 36-Item Short-Form Health Survey questionnaire mental subscales and Mental Component Summary at baseline, one month, six months, and 12 months visit.

Variable	Visit											
	Baseline			1 mth			6 mths			12 mths		
	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value
Norm-based SF-36 Vitality Scale	272	0.261	< 0.001	248	0.281	< 0.001	201	0.172	0.014	185	0.283	< 0.001
Norm-based SF-36 Social Functioning Scale	274	0.186	0.002	251	0.275	< 0.001	201	0.212	0.003	185	0.330	< 0.001
Norm-based SF-36 Role Emotional Scale	266	0.170	0.006	249	0.266	< 0.001	201	0.211	0.003	184	0.246	< 0.001
Norm-based SF-36 Mental Health Scale	272	0.257	< 0.001	248	0.295	< 0.001	201	0.266	< 0.001	184	0.260	< 0.001
SF-36 MCS	264	0.188	0.002	246	0.273	< 0.001	199	0.167	0.018	183	0.231	0.002

Interpretation for correlation coefficient (absolute value): 0.0 to < 0.2: very weak, 0.2 to < 0.4 weak, 0.4 to < 0.6 moderate, 0.6 to < 0.8 strong, 0.8 to 1.0 very strong.

MCS, Mental Component Summary; SF-36, 36-Item Short-Form Health Survey questionnaire.

**Table v.** Spearman correlation between Parker Mobility Score and 36-Item Short-Form Health Survey questionnaire mental subscales and Mental Component Summary at baseline, one month, six months, and 12 months visit.

Variable	Visit											
	Baseline			1 mth			6 mths			12 mths		
	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value
Norm-based SF-36 Vitality Scale	275	0.220	< 0.001	251	0.275	< 0.001	206	0.248	< 0.001	185	0.288	< 0.001
Norm-based SF-36 Social Functioning Scale	277	0.203	< 0.001	254	0.225	< 0.001	206	0.391	< 0.001	185	0.471	< 0.001
Norm-based SF-36 Role Emotional Scale	269	0.181	0.003	252	0.172	0.006	206	0.300	< 0.001	184	0.365	< 0.001

Variable	Visit											
	Baseline			1 mth			6 mths			12 mths		
	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value	n	r <sub>s</sub>	p-value
Norm-based SF-36 Mental Health Scale	275	0.229	< 0.001	251	0.231	< 0.001	206	0.345	< 0.001	184	0.265	< 0.001
SF-36 MCS	267	0.098	0.110	249	0.150	0.018	204	0.196	0.005	183	0.218	0.003

Interpretation for correlation coefficient (absolute value): 0.0 to < 0.2: very weak, 0.2 to < 0.4 weak, 0.4 to < 0.6 moderate, 0.6 to < 0.8 strong, 0.8 to 1.0 very strong.

MCS, Mental Component Summary; SF-36, 36-Item Short-Form Health Survey questionnaire.