

Table S3: q estimates for TW and non-TW combined under SA1 and SA2 assumptions

	1	2	3	Phases		4	All phases	P-value ¹
SA1 Assumptions								
ICU1	0.0032 (0.0025, 0.0041)	0.0033 (0.0019, 0.0059)	0.0032 (0.0021, 0.0046)	0.0012 (0.0008, 0.0018)	0.0024 (0.0020, 0.0029)			< 0.0001
ICU2	0.0037 (0.0030, 0.0046)	0.0036 (0.0022, 0.0059)	0.0038 (0.0027, 0.0056)	0.0016 (0.0012, 0.0022)	0.0029 (0.0025, 0.0033)			< 0.0001
Combined	0.0035 (0.0030, 0.0041)	0.0035 (0.0024, 0.0051)	0.0035 (0.0027, 0.0046)	0.0014 (0.0011, 0.0018)	0.0027 (0.0024, 0.0030)			< 0.0001
P-value ²	0.15	0.37	0.82	0.45	0.26			
SA2 Assumptions								
ICU1	0.0032 (0.0025, 0.0041)	0.0029 (0.0016, 0.0053)	0.0032 (0.0022, 0.0047)	0.0012 (0.0008, 0.0018)	0.0024 (0.0020, 0.0028)			< 0.0001
ICU2	0.0036 (0.0029, 0.0044)	0.0028 (0.0016, 0.0049)	0.0037 (0.0026, 0.0054)	0.0015 (0.0011, 0.0021)	0.0027 (0.0023, 0.0031)			< 0.0001
Combined	0.0034 (0.0029, 0.0040)	0.0029 (0.0019, 0.0043)	0.0034 (0.0026, 0.0045)	0.0014 (0.0011, 0.0018)	0.0025 (0.0023, 0.0029)			< 0.0001
P-value ²	0.34	0.50	0.89	0.58	0.45			

Sensitivity analysis for phase-specific estimates for q , the daily probability of a susceptible patient acquiring MRSA from an MRSA positive patient in the same ward, for ICU 1 and ICU 2 (without distinguishing between TW and non-TW strains). In the *Combined* row, the estimates are constrained to be the same in both wards, and the *All phases* column constrains the estimates to be the same in the four phases. See protocol in supporting material for details of the SA1 and SA2 assumptions used in the sensitivity analyses.

¹ P-values test the null hypothesis that transmission does not vary between study phase (likelihood ratio test, $df=3$).

² P-values test the null hypothesis that transmission in the current phase does not differ between wards (likelihood ratio test, $df=1$).