

1 **Supplementary Materials**

2 **Supplemental Tables**

**Table S1.** Probability of decreased susceptibility at 30 days post-start of therapy and number of events by AUC:MIC ratio category

<b>AUC:MIC ratio category</b>	<b>Kaplan-Meier estimated % probability of decreased susceptibility at 30 days<sup>a</sup></b>	<b>Number of events with decreased susceptibility<sup>b</sup></b>	<b>Total</b>
<1480	0	0	21
≥1480 - <1970	0.278	5	18
≥1970	0.081	6	62
Total		11	101

Log rank p=0.013.

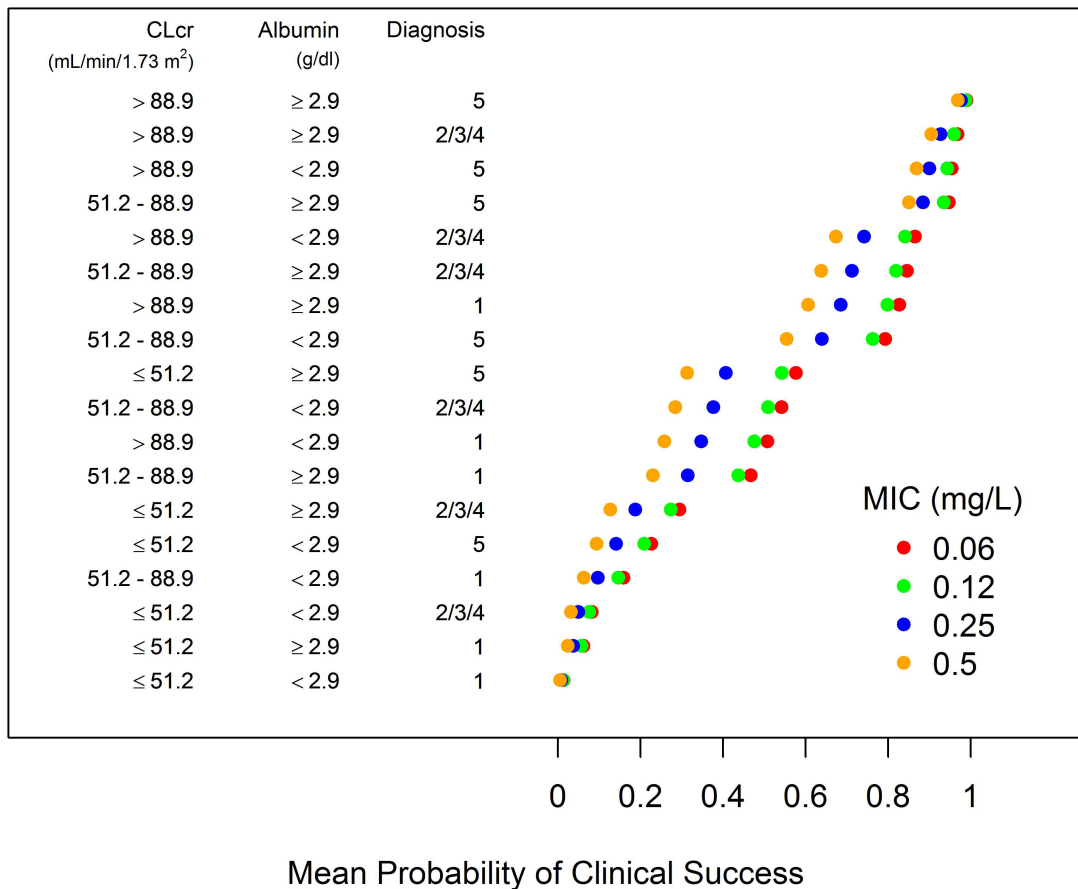
a. Decreased susceptibility was defined as a ≥4 fold increase in the MIC value of *S. aureus* relative to the baseline value.

b. The observation period ended at Day 43.

**Table S2.** Mean probability of response by cohort and MIC for simulated patients receiving daptomycin 6, 8, and 10 mg/kg/day

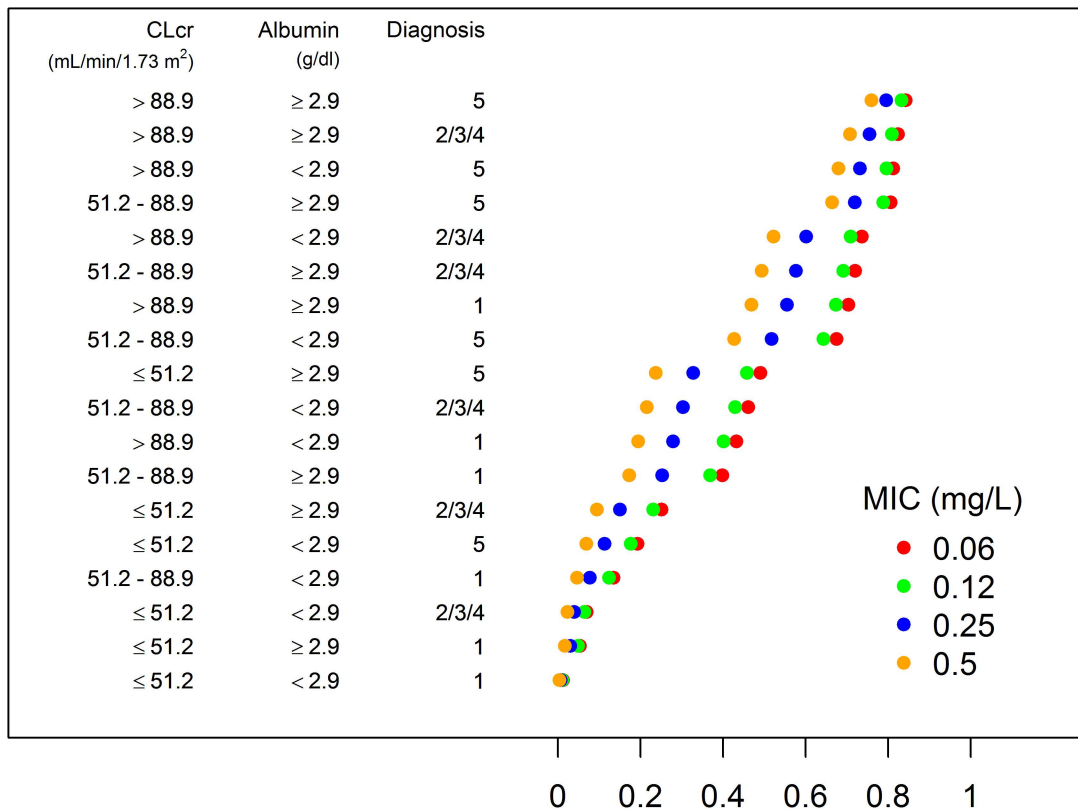
Cohort <sup>a</sup>	MIC (mg/L)	Daptomycin dosing regimen					
		6 mg/kg/day		8 mg/kg/day		10 mg/kg/day	
		Probability of clinical success	Probability of decreased susceptibility on Day 30	Probability of clinical success	Probability of decreased susceptibility on Day 30	Probability of clinical success	Probability of decreased susceptibility on Day 30
Uncomplicated bacteremia, CLcr >88.9 mL/min/1.73 m <sup>2</sup> , and albumin <2.9 g/L	0.12	0.943	0.087	0.951	0.082	0.953	0.081
	0.25	0.899	0.097	0.920	0.097	0.933	0.093
	0.5	0.869	0.042	0.880	0.068	0.889	0.090
	1	0.859	0.004	0.861	0.014	0.865	0.029
Uncomplicated bacteremia, CLcr 51.2 to 88.9 mL/min/1.73 m <sup>2</sup> , and albumin <2.9 g/L	0.12	0.762	0.087	0.783	0.082	0.790	0.081
	0.25	0.639	0.097	0.696	0.097	0.734	0.093
	0.5	0.554	0.042	0.584	0.068	0.610	0.090
	1	0.527	0.004	0.532	0.014	0.542	0.029
Left-sided endocarditis, CLcr >88.9 mL/min/1.73 m <sup>2</sup> , and albumin ≥2.9 g/L	0.12	0.798	0.087	0.817	0.082	0.824	0.081
	0.25	0.685	0.097	0.737	0.097	0.772	0.093
	0.5	0.606	0.042	0.634	0.068	0.658	0.090
	1	0.581	0.004	0.585	0.014	0.595	0.029
Left-sided endocarditis, CLcr, ≤ 51.2 mL/min/1.73 m <sup>2</sup> , and albumin <2.9 g/L	0.12	0.013	0.087	0.014	0.082	0.014	0.081
	0.25	0.008	0.097	0.010	0.097	0.012	0.093
	0.5	0.005	0.042	0.006	0.068	0.007	0.090
	1	0.004	0.004	0.004	0.014	0.005	0.029

Figure S1. Mean model-predicted probabilities of clinical success by MIC value for simulated patients evaluated for 18 clinical scenarios



CLcr=creatinine clearance normalized for body surface area; Diagnosis: 1=left-sided endocarditis; 2, 3, or 4=complicated right-sided endocarditis, uncomplicated right-sided endocarditis, or complicated bacteremia, respectively; 5=uncomplicated bacteremia

Figure S2. Mean model-predicted joint probabilities of favorable outcomes by MIC value for simulated patients evaluated for 18 clinical scenarios



### Mean Joint Probability of Favorable Outcomes

CLcr=creatinine clearance normalized for body surface area; Diagnosis: 1=left-sided endocarditis; 2, 3, or 4=complicated right-sided endocarditis, uncomplicated right-sided endocarditis, or complicated bacteremia, respectively; 5=uncomplicated bacteremia