Response to Mahatanan and Kang: It's Complicated

To the Editor—We thank Mahatanan and Kang [1] for their commentary on our study. which evaluated the role of dalbavancin (DAL) in the treatment of *Staphylococcus aureus* bloodstream infections [2]. The authors highlight that the majority of our cohort treated with DAL were retrospectively categorized as having uncomplicated bloodstream infection, as defined by Infectious Diseases Society of America (IDSA) guidelines, and that these patients possibly received longer therapy than recommended by current guidelines. Among patients with uncomplicated bacteremia (n = 25), the mean (standard deviation) time of inpatient intravenous therapy was 12.9 (5.1) days, compared with 23.7 (15.6) days in patients with complicated infection (n = 20). Unadjusted rates of 90-day clinical failure at 90 were similar among DAL-treated patients when stratified by disease complication (uncomplicated vs complicated, 12% [3 of 25] vs 15% [3 of 20], respectively). Similar rates of failure were seen in the standard-of-care treatment group for uncomplicated (15.6% [12 of 77]) and complicated disease (20.4% [21 of 103]).

Notably, patients in the DAL cohort designated as having uncomplicated disease had a higher proportion of community-acquired infection (92% [23 of 25]) than those with complicated disease (72% [15 of 20]). The definition in the IDSA guidelines may not fully account for disease complications, and previous studies have shown that community acquisition is an important predictor of complicated *S aureus* bacteremia [3]. It is likely that clinicians, at the time of the treatment decision, deemed that many patients in our cohort were likely to benefit from or required a prolonged treatment duration for a variety of reasons. As Mahatanan and Kang [1] correctly point out, a single 1500-mg dose of DAL provides an additional 2–3 weeks of therapy. Some patients may have ultimately been treated longer than needed. Given the off-label use of DAL to complete a treatment duration in patients with potentially severe consequences of a treatment failure, it is likely that the clinicians favored overtreatment, rather than undertreatment, while balancing patient centric benefits such as avoiding central catheter placement and an earlier discharge to an unmonitored setting (home).

In addition, to facilitate future aggregation of data we have provided a subgroup analysis of 90-day composite clinical failure by site of infection (Table 1), noting that more than one infection site was allowed for each patient. Inferential statistics were not performed owing to small sample sizes.

Table 1. Subgroup Analysis of Infection Sites for Composite 90-day Clinical Failure

	Patients, No./Total (%)	
Infection Site or Type	Standard of Care Treatment	Dalbavancin
Overall	33/180 (18.3)	6/45 (13.3)
Skin/soft tissue	6/63 (9.5)	3/17 (17.6)
Musculoskeletal	3/48 (6.2)	2/7 (28.6)
Pulmonary	12/35 (34.3)	1/9 (11.1)
Endocarditis	5/26 (19.2)	1/4 (25)
Abdominal	2/7 (28.6)	0/2 (0.0)
Catheter related	4/24 (16.7)	0/4 (0.0)
Urinary	1/6 (16.7)	0/4 (0.0)
Other/unknown	2/13 (15.4)	1/9 (11.1)

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References

1. Mahatanan R, Kang H. Letter to Editor. Open Forum Infectious Diseases **2023**; ofad207.
2. Molina KC, Lunowa C, Lebin M, et al. Comparison of sequential dalbavancin with standard-of-care treatment for *Staphylococcus aureus* bloodstream infections. Open Forum Infect Dis **2022**; 9: ofac335.
3. Fowler VG Jr, Olsen MK, Corey GR, et al. Clinical identifiers of complicated *Staphylococcus aureus* bacteremia. Arch Intern Med **2003**; 163:2066–72.

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