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Dalbavancin for *Staphylococcus aureus* Bacteremia: Are We There Yet?

To the Editor—We read with great interest the study by Molina et al [1]. Dalbavancin (DAL) is a lipoglycopeptide that was approved by the US Food and Drug Administration in 2014 for the treatment of acute Gram-positive bacterial soft tissue and skin structure infections (ABSSIs) [2]. Recent studies have shown favorable outcomes with using DAL for the treatment of other types of Gram-positive infections including endocarditis [3], osteomyelitis [4], and prosthetic joint infection (PJI) [5]. Wunsch et al [6] described a high success rate (89%) of using DAL in a cohort study for a variety of Gram-positive organisms associated with ABSSI, PJI, osteomyelitis, catheter-related infection, and endocarditis, but the percentage of bacteremia associated with each condition was not specified.

Molina et al's [1] study fills an important gap in the literature. This retrospective cohort study compared outcomes of sequential dalbavancin and standard-of-care (SoC) treatment for *Staphylococcus aureus* bloodstream infection (SAB) [1]. The study included 225 patients (45 DAL, 180 SoC). The study excluded (1) patients with polymicrobial blood cultures, retained hardware, or central nervous system infection, (2) incarcerated or pregnant individuals, (3) those who left against medical advice, and (4) those who were lost to follow up. There was no difference of 90-day clinical failure between the two groups (adjusted odds ratio, 0.94; 95% confidence interval, 0.333–2.32). The DAL group had a shorter length of stay and lower utilization of central venous catheters. The study provides compelling real-world evidence of using sequential DAL in a select group of population, particularly in community-acquired SAB infection, and is of relevance to patients who may be poor candidates for outpatient parenteral antibiotic therapy.

In DAL group, the majority (55.6%) of patients had uncomplicated SAB, with a median duration of bacteremia of 2 days. These patients received intravenous SoC antibiotics for 15 days before receiving dalbavancin. This piqued our curiosity, because it is our standard practice to treat uncomplicated SAB with 14 days of antimicrobial therapy from the clearance of bacteremia. One dose of dalbavancin after 15 days of SoC antibiotic is effectively 3–4 weeks of antimicrobial therapy, which seems rather prolonged for an uncomplicated SAB. We hope to see a subgroup analysis that shows the treatment duration based on whether SAB was complicated versus uncomplicated.

In a similar vein, the authors described the sites of infection in detail in Table 1; however, the sites of infection were not shown in the outcome analysis in Table 3. It would be helpful for the readers to see a subgroup analysis of the outcomes stratified by sites of infection. We acknowledge the small sample size in the DAL group, which would make the findings of the subgroup analysis difficult to ascertain. Nevertheless, this information can be helpful (1) as aggregated data to guide clinicians in deciding to utilize sequential DAL for SAB based on the source of infection and (2) to direct future studies by exploring an appropriate use of DAL in site-specific infection associated with SAB.

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