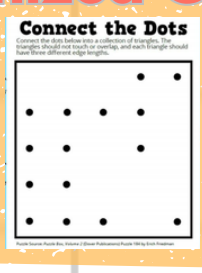
Dalbavancin for Treatment of Staphylococcus aureus Bacteremia The DOTS Randomized Clinical Trial

- CONNECTING THE DOTS



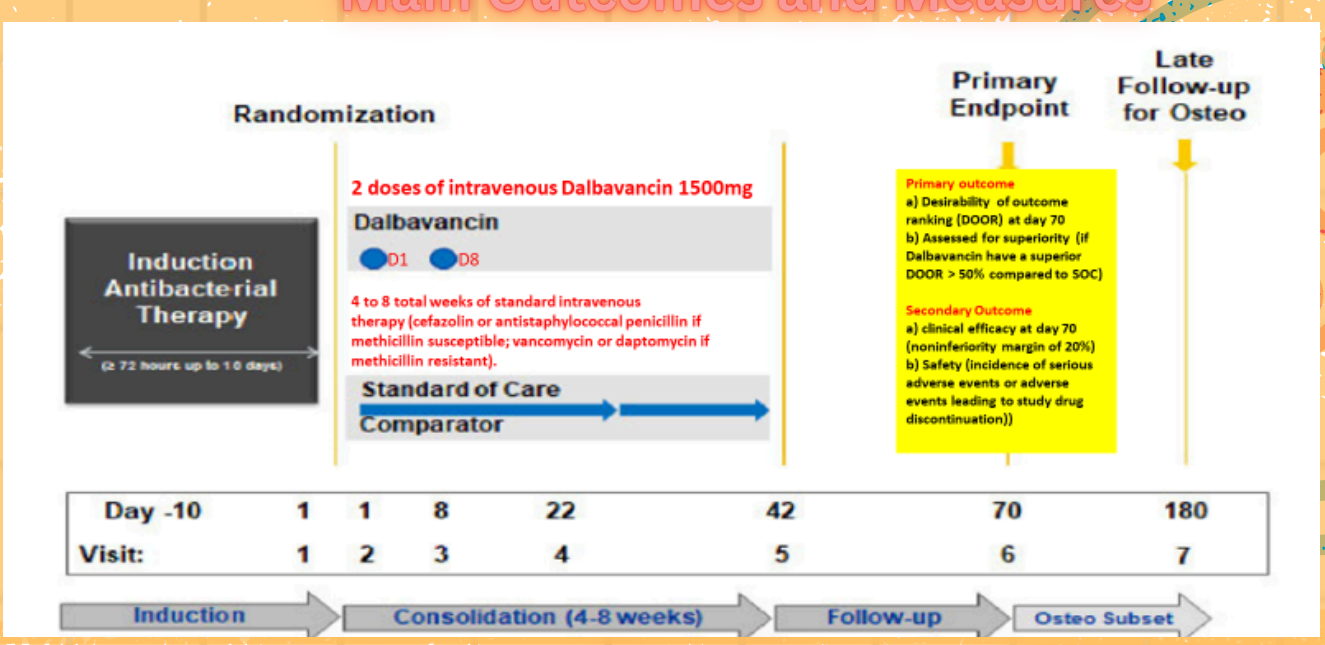
Background

Dalbavancin is a long-acting intravenous lipoglycopeptide (14 days terminal half-life) with potent in vitro activity against S aureus (including methicillin-resistant S aureus [MRSA]).

Objective

To evaluate the efficacy and safety of dalbavancin vs standard therapy for completion of treatment of complicated S aureus bacteremia.

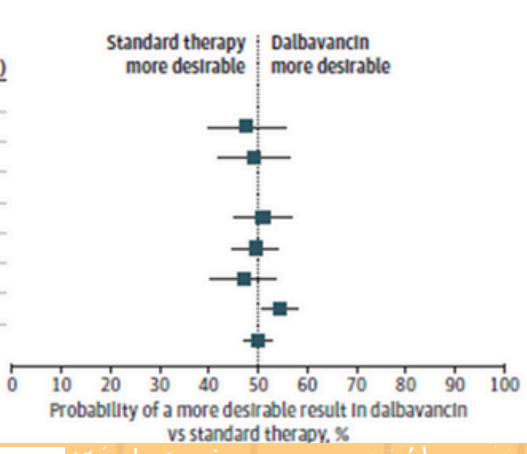
Main Outcomes and Measures

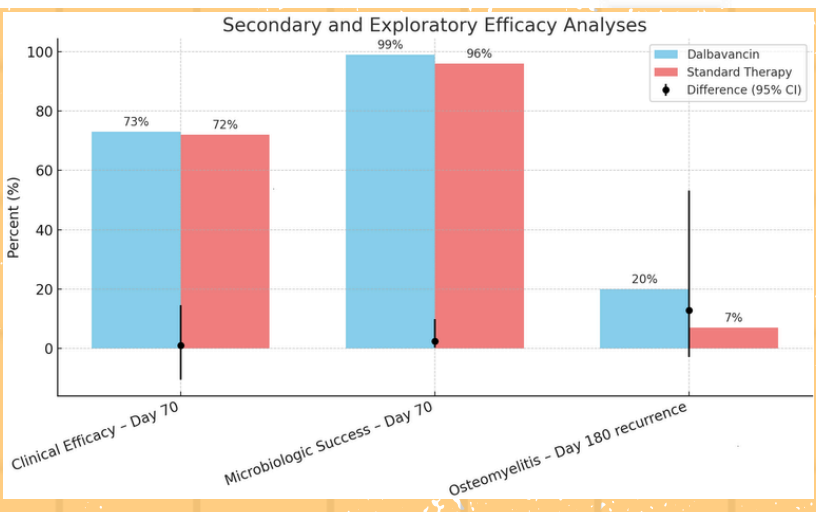


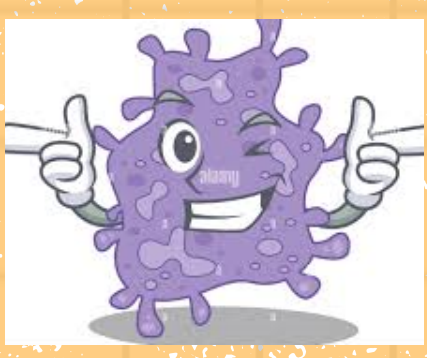
Results

A Desirability of outcome ranking and components by treatment group

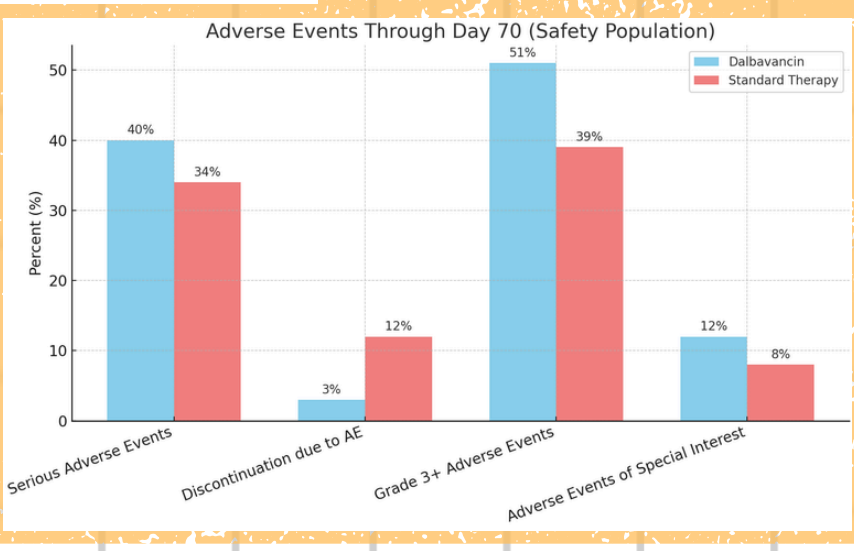
Source	Participants, No. (%) Dalbavancin (n = 100)	Standard therapy (n = 100)	Desirability of outcome ranking probability, % (95% CI)
Desirability of outcome ranking			
With quality-of-life tiebreak (primary)			47.7 (39.8-55.7)
Without quality-of-life tiebreak			49.3 (42.0-56.6)
Desirability of outcome ranking components			
Clinical failure	20 (20.0)	22 (22.0)	51.0 (45.3-56.7)
Infectious complications	13 (13.0)	12 (12.0)	49.5 (44.8-54.2)
Nonfatal serious adverse events	40 (40.0)	34 (34.0)	47.0 (40.4-53.7)
Adverse events leading to discontinuation	3 (3.0)	12 (12.0)	54.5 (50.8-58.2)
Death	4 (4.0)	4 (4.0)	50.0 (47.1-52.9)







Rates of adverse events leading to **treatment discontinuation** and select adverse **events of special interest (e.g., catheter-associated thrombosis**) were more **frequent** in the **standard therapy** group



Conclusion

Among adult participants with complicated Staph aureus bacteremia who achieved blood culture clearance, dalbavancin was not superior to standard therapy by desirability of outcome ranking. However, comparable clinical efficacy and safety outcomes may help inform use of dalbavancin in clinical practice.

Limitation

1. Open labelled trial which may result in bias
2. Low number of participants and they were enrolled after clearance of bacteremia (could attribute to lower mortality rate)
3. Inclusion of treatment discontinuation as a DOOR component might favor dalbavancin (long acting agent)
4. bacteremia duration of longer than 4 days was more common among participants in standard therapy (might points to a more severe infection)