



Dalbavancin for the Treatment of Infections due to *Staphylococcus aureus*

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Objectives

- Describe dalbavancin use for severe *Staphylococcus aureus* infections at our institution
- Evaluate clinical outcomes for patients treated for a full or partial course with dalbavancin for severe *S. aureus* infections

Background

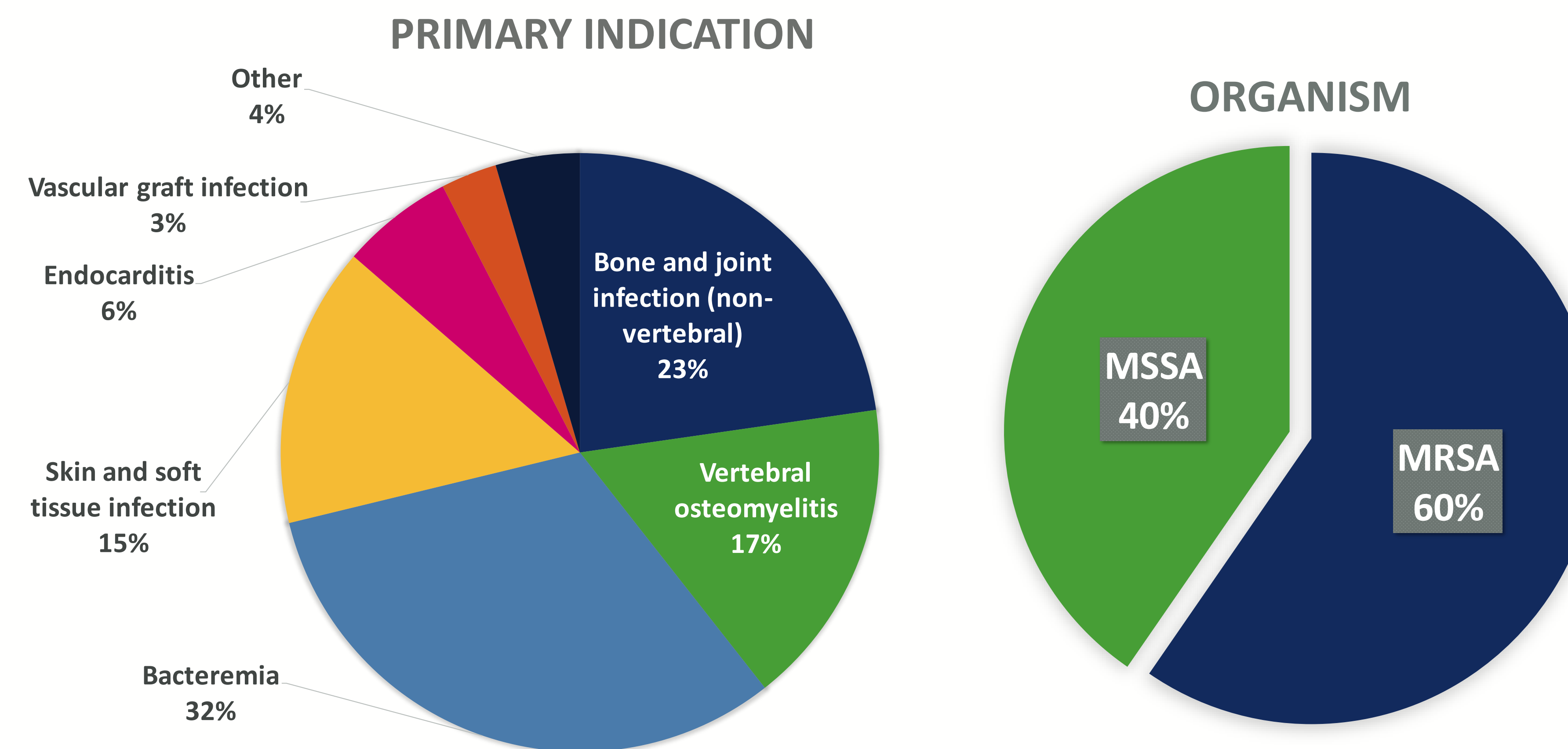
- Dalbavancin is a lipoglycopeptide antibiotic active against gram-positive organisms. It's extended half-life allows for weekly dosing that can last 4 to 6 weeks with 2 doses
- Although only FDA-approved for treating skin and soft tissue infections, adequate bone concentrations and clinical outcomes have been reported for the treatment of osteomyelitis^{1,2}
- Use of for complicated infections is appealing, particularly when daily antibiotics are impractical, but clinical outcomes data for other complicated infections is limited^{3,4}

Methods

- Retrospective study of dalbavancin use for severe infections including bacteremia caused by *S. aureus*
- We identified all patients ≥18 years old who received at least 1 dose of dalbavancin in any setting
- Infectious Disease faculty reviewed charts for clinical characteristics and outcomes of the infections

Results

n=52



*26 (50%) of patients had positive blood cultures

Dosing Regimens Utilized	n (%)
1500 mg x 1	29 (55)
1500 mg x 2	13 (25)
1000 mg x 1	3 (6)
1000 mg x1, followed by 500 mg weekly	3 (6)
1500 mg x1, followed by 1000 mg x1	1 (2)
1000 mg weekly	1 (2)
1000 mg x1, followed by 375 mg weekly	1 (2)
760 mg x 1, followed by 375 mg x1	1 (2)

Diagnostic Imaging Performed in Workup	n (%)
TTE	29 (56)
➤ TTE resulted as no vegetation or unexplained regurgitation	19 (66)
TEE	2 (4)
Cross-sectional Spine Imaging (CT or MRI)	17 (33)
Vascular imaging (venous duplex ultrasound)	13 (25)
Other cross-sectional imaging	18 (35)
Any additional imaging to assess for metastatic infection	5 (10)

Demographics	n (%)
Age (Years)	Mean 45.5 (STD 13.5)
Gender (Female)	15 (29%)
History of IVDU	27 (52%)

Reason for Selection	n (%)
History of IV drug use	25
Lack of safe home environment in which to receive daily IV antibiotics	11
Prior non-adherence to outpatient antibiotics	11
Clinical contraindications to alternative antibiotics	7
Adverse reaction to initial outpatient antibiotic	5
Lack of alternative outpatient options due to funding or insurance issues	5
Substance use, not IV drug use	3
Inability of patient to physically manage PICC	2
Patient refused PICC or daily outpatient IV antibiotics	2
Prior history of contaminated/manipulated PICC	2
Discharging to a setting that could not accommodate daily IV antibiotics	2
Prior treatment failure	1
Unclear	1

Dalbavancin was selected for one or more of the below reasons, all reasons given in medical record were noted so the denominator is > 52

Clinical Endpoints	n (%)
Loss to follow-up by day 90	8 (15)
Readmission for any reason by day 30	13 (25)
Readmission for any reason between days 30-90	1 (2)
Dalbavancin-related adverse effects	2 (4)
Readmission due to adverse effects	0
Recurrence or relapse of infection by day 30	11 (21)
Recurrence or relapse of infection between days 30-90	5 (10)
30-day mortality	0
90-day mortality	0

Conclusion

While our results suggest dalbavancin is well tolerated, questions about relapse rates in the treatment of severe *S. aureus* infections remain and caution is warranted in clinical situations without optimal control of the infection.

Further research is needed to evaluate clinical outcomes for dalbavancin compared to standard of care antibiotics for *S. aureus* infections.

References

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