

# **Clinical Outcomes of Off-label Dalbavancin Use within an Outpatient Antibiotic Therapy Program (OPAT)** Rita Igwilo-Alaneme, MD<sup>1</sup>; Hongkai Bao, PharmD<sup>2</sup>; Mani Kahn, MD<sup>3</sup>; Priya Nori, MD<sup>4</sup>

<sup>1</sup>Department of Medicine, <sup>2</sup>Department of Pharmacy; <sup>3</sup>Department of Orthopedic Surgery, <sup>4</sup>Department of Medicine (Infectious Diseases) and Orthopedic Surgery, Montefiore Medical Center, Bronx, NY

## BACKGROUND

- Dalbavancin is approved for the treatment of acute bacterial skin and skin structure infections (ABSSSI).
- There is less data on outcomes of off-label use of dalbavancin for complex orthopedic infections.
- The objective of this study was to analyze clinical outcomes of deep-seated infections treated with IV dalbavancin as an alternative to daily, long-term IV antibiotics post hospital discharge.

# **OUTCOMES OF INTEREST**

- Primary outcome was 90-day infection recurrence
- Secondary outcomes:
  - ~ Hardware retention rates
  - ~ 90-day mortality
  - ~ Adverse events
  - ~ Characteristics of antibiotic regimens

# **METHODS**

### **Study Design**

- Observational, retrospective case series conducted at an urban health system in the Bronx, New York between January 2020 and February 2022
- List of patients obtained via outpatient parenteral antibiotic therapy (OPAT) program insurance claims

Inclusion Criteria	Exclusion Criteria
<ul> <li>≥18 years old</li> </ul>	<ul> <li>Received</li> </ul>
<ul> <li>Received at least one dose of dalbavancin for off-label indications</li> </ul>	dalbavancin for ABSSI

- Data collected included demographics, comorbidities, infection type, organism, treatment setting, details of dalbavancin dosing and surgical management
- IRB approval waived

# RESULTS

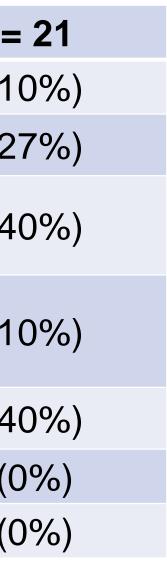
Table 1 Dationt Summary Infection Characteristics Treatment		Table 2. Outcomes		
Table 1. Patient Summary, Infection Characteristics, Treatme			N =	
	N = 21	90-d infection recurrence	2 (10	
Male, n (%)	14 (67%)	Hardware retention at dalbavancin initiation	5 (27	
Age, years, median	51	Eventual hardware removal due to	2 (40	
Race		recurrence within 90 days		
Hispanic	13 (62%)	Eventual hardware removal due to	1 (10	
Black	2 (10%)	recurrence within 180 days		
White Charles in Comparishing the days are adjusted	6 (29%)	Hardware retention without recurrence	2 (40	
Charlson Comorbidity Index, median	1	90-d mortality	0 (00	
Infection type	0 (200/)	Adverse effects	0 (0	
Hardware infection	8 (38%)	<ul> <li>DISCUSSION</li> <li>Most common reasons for dalbavancin use were persistence infection after initial therapy, difficulty with vancomycin dosin line access, and intravenous drug use history.</li> <li>Our study showed high rates of infection cure with dalbavan hardware infections overall, the 90-d cure rate was 75% (6 d patients), and 100% (3 of 3 patients) when combined with su management. For all other infections, there were no recurre</li> <li>Limitations include a small number of patients, the observation nature without a comparator group, the lack of standardized regimens, and unclear contribution from ongoing oral antibide</li> </ul>		
Spinal abscess	3 (14%)			
Osteomyelitis	4 (19%)			
Complex soft tissue infection <sup>1</sup>	5 (24%)			
Septic arthritis	1 (5%)			
Hardware infection (n=8)				
Prosthetic device removal prior to dalbavancin treatment	3			
Prosthetic device retention prior to dalbavancin treatment	5			
MSSA	7 (33%)			
MRSA	6 (29%)	CONCLUSION		
Receipt of antibiotics prior to dalbavancin	21 (100%)	<ul> <li>Use of dalbavancin for hardware infections, osteomyelitis, complicated soft tissue infections and spinal infections is as with favorable cure rates, safety profile and tolerability</li> </ul>		
Concomitant antibiotic treatment (along with dalbavancin)	6 (29%)			
Doses of Dalbavancin (milligrams)		<ul> <li>For hardware infections, source control is essentia</li> </ul>	I for clinica	
1000mg followed by 500mg 1 week apart	13 (62%)	<ul> <li>Substantial cost-saving implications through reduction in holength of stay and readmissions</li> <li>Large, multicenter studies and randomized controlled trials to establish efficacy, tolerability, standardized dosing, and reductions</li> </ul>		
1500mg followed by 1500mg 1 week apart	5 (24%)			
Received antibiotics after dalbavancin completion	11 (52%)			
Location: Outpatient/ER	20 (95%) / 1 (5%)	concomitant antibiotics		

<sup>1</sup>Silicone implanted-related cellulitis (1), deep surgical wound infection (1), bullous erysipelas (1), complex fracture with cellulitis (1), hidradenitis suppurativa (1)

**Contact Information** Rita Igwilo-Alaneme, MD **Montefiore Medical Center Department of Medicine** 600 E 233<sup>rd</sup> Street, Bronx, NY 10466 rigwilo@montefiore.org

**REFERENCES** 

1. Wunsch S, Krause R, Valentin T, et al. Multicenter clinical experience of real life Dalbavancin use in gram-positive infections. Int J Infect Dis. 2019;81:210-214. https://doi.org/10.1016/j.ijid.2019.02.01 2. Malabarba A, Goldstein BP Origin, structure, and activity in vitro and in vivo of dalbavancin. J Antimicrob Chemother 2005;55: ii15-20. https://doi.org/10.1093/jac/dki008



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