PAGNY RESEARCH DAY

Physician Affiliate Group of New York, P.C.

Dalbavancin in High-Risk Patients: Real-World Safety with Zero 30-Day Mortality

Hayder Abidali, D.O.; Dania Abu Zahra, MBBS; Ho Yin Henry Chan, M.D.; Aleksandr Lyakhovetskiy, Pharm.D; Addi Feinstein, MD
Lincoln Medical Center, Bronx, New York

INTRODUCTION

- Dalbavancin is a long-acting lipoglycopeptide with a half-life of approximately 14 days.
- Medical Use: FDA-approved for acute bacterial skin and skin structure infections (ABSSSI), with expanding off-label use in vulnerable populations like persons who inject drugs (PWID).
- Data Availability: Real-world safety and effectiveness data in high-risk groups are limited.

OBJECTIVES

- Evaluate clinical outcomes of dalbavancin at a safety-net hospital.
- Emphasize safety (30-day mortality), adherence to dosing, and 30-day infection-related readmission.
- Explore risk factors for failure, including PWID status, bacteremia, and metastatic infection.

METHODS

- Design: Retrospective cohort of adults receiving dalbavancin for gram-positive infections (May 2023–March 2025).Regimen: 1500 mg IV once; optional second 1500 mg on day 8.
- Primary outcomes: 30-day infection-related readmission, 30-day mortality, treatment completion.
- Secondary: Risk factors for failure (PWID, bacteremia, metastatic complications).
- Statistics: Proportions with 95% CI; Fisher's exact test for categorical comparisons.

RESULTS

0%
30-Day Mortality

19%
30-Day Infection-Related Readmission (95% CI: 10-34%)

67%
PWID Completing Second Dose

50%
Patients Were PWID (18/36 courses)

Table 1. Indications for Dalbavancin

Category	N	%
Bacteremia + metastatic inf.	11	32%
Bacteremia only	1	3%
OM/SA without bacteremia	9	25%
Endocarditis	1	3%
SSTI MRSA/MSSA	4	11%
SSTI culture-negative	2	6%
Other Gram-positive infections	4	11%
Total	**34***	**100%**

*Two patients received dalbavancin twice during the study period.

Table 2. 30-Day Infection-Related Readmission by Category

Category	N	Readm.	Rate (%)	95% CI
Bacteremia + metastatic inf.	11	4	36%	15–65%
Bacteremia only	1	0	0%	0–79%
OM/SA without bacteremia	9	2	22%	6–55%
Endocarditis	1	0	0%	0–79%
SSTI MRSA/MSSA	4	1	25%	5–70%
SSTI culture-negative	2	0	0%	0–66%
Other Gram-positive infections	4	0	0%	0–49%

DISCUSSION

Key Findings:

•Excellent safety profile with **zero 30-day mortality**

•Challenges assumptions about PWID adherence: **67% completed two-dose regimens**

•19% readmission rate compares favorably to historical outcomes in similar high-risk populations

Clinical Implications:

•Higher failure rates in PWID (33% vs. 6%) and bacteremic patients (29% vs. 14%) underscore multifactorial treatment success

•Failures in bacteremia with metastatic foci likely reflect the need for source control/surgical intervention rather than antimicrobial inadequacy

Limitations: Small sample size, potential selection bias, single-center experience

CONCLUSION

Dalbavancin represents a safe and feasible harm-reduction strategy for invasive gram-positive infections in vulnerable populations with barriers to traditional prolonged IV therapy.

REFERENCES

1. Wunsch S, Krause R, Valentin T, Prattes J, Janata O, Lenger A, et al. Multicenter clinical experience of real-life dalbavancin use in gram-positive infections. Int J Infect Dis. 2019;81:210-4.
2. Tobudic S, Forstner C, Burgmann H, Lagler H, Ramharter M, Steineder R, et al. Real-world experience with dalbavancin therapy in gram-positive skin and bloodstream infections. Antimicrob Agents Chemother. 2019;63(3):e02292-18.
3. Morrisette T, Miller MA, Montague BT, Barber GR, McQueen RB, Krsak M. Long-acting lipoglycopeptides: "lineless antibiotics" for serious infections in persons who use drugs. Open Forum Infect Dis. 2019;6(6):ofz274.