Utilization of Dalbavancin in the Home Infusion Setting

Lauren Cesare, PharmD; Christopher Roy, PharmD, BCSCP; Maria Giannakos, PharmD, MBA, BCPS, BCSCP; David Shepherd, PharmD; Joseph Soultatos, PharmD, BCSCP; Susan Dietze, PharmD

Option Care Health - Shelton, CT

Introduction/Background

Staphylococcus infections, commonly associated with acute bacterial skin and skin structure (ABSSSI), often require hospitalization. Historically, drugs used to treat these infections, such as vancomycin, require a lengthy treatment regimen with extensive monitoring.

Intravenous dalbavancin is a lipoglycopeptide antibiotic approved for the use of acute bacterial skin and skin structure infections (ABSSSI) caused by gram-positive organisms in adult patients.[1] Dalbavancin allows a straightforward one or two-dose regimen, which can be administered in the outpatient setting with minimal monitoring parameters.[1]

Purpose/Objective

The purpose of this study was to investigate the dalbavancin regimens used and the associated patient outcomes.

Original Research Study Methods

A retrospective study examined electronic medical records of patients receiving dalbavancin from a nationwide home infusion company. Inclusion criteria were patients 18 years and older who received dalbavancin between January 1, 2020 and June 30, 2021. Data collection included: diagnosis, line access type, duration of therapy, number of doses received, and reported adverse events. Adverse events were those documented in the company reporting system. Patients under 18 were excluded.

Results

Data was analyzed from 448 patients from 62 pharmacy locations who received dalbavancin. Demographic information can be seen in summary *Table 1* which includes gender, age, and diagnosis. The breakdown by diagnosis can be seen in *Figure 1*, with ABSSSI as the most common diagnosis. Duration of dalbavancin therapy for the top three diagnoses of ABSSSI, osteomyelitis, and bacteremia are shown in *Figure 2*.

The most common duration of therapy for all diagnoses was 2 weeks (n=184, 41%), followed by 3 weeks (n=164, 37%). Of the 176 patients with diagnosis of ABSSSI, the most common dosing strategy was a one-time only dose (n=89, 51%), followed by a two-dose regimen (n=68, 39%) which resulted in over 80% of these regimens aligned with FDA approved dosing.

Five patients had documented adverse events, which consisted of itchiness, shortness of breath, flushing, and inflammation. There were eight patients who refused doses. Peripheral line use was the most common means of administration (n=351, 78.3%).

Table 1: Summary of Patient Population

Gender	
Male	280 (62.5%)
Female	168 (37.5%)
Age Range	
20-34	45 (10%)
35-49	102 (22.8%)
50-64	155 (34.6%)
65-79	107 (23.9%)
80-94	34 (7.6%)
95-109	5 (1.1%)
Diagnosis	
ABSSSI	176 (39.3%)
Osteomyelitis	119 (26.6%)
Bacteremia	48 (10.7%)
MRSA (Unspecified)	45 (10%)
Arthritis	32 (7.1%)
Other	15 (3.3%)
Post Procedural Infection	13 (2.9%)

Figure 1: Breakdown by Diagnosis

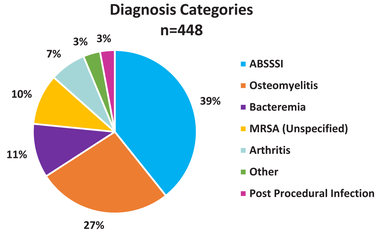
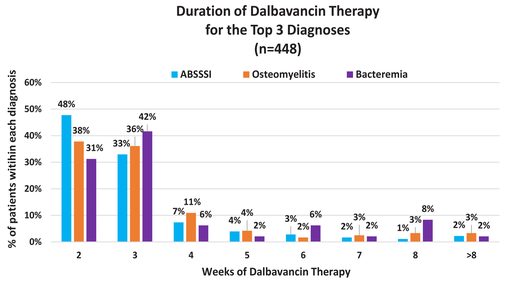


Figure 2: Duration of Therapy for the Top 3 Diagnoses



Discussion

This study provided an in-depth review of prescribing patterns of a novel antimicrobial in the home infusion setting. Although majority of patients received a duration of therapy of two weeks, it was not uncommon to see extended durations of therapy for select diagnoses. Extended durations of therapy did not result in increased adverse events.

A potential limitation of the study includes reliance on provider documentation. The patient population was also not evenly distributed between gender or age, and some patients received doses outside of the specified durations which contributed to several outliers.

Under-reporting adverse events could also impact the use of dalbavancin. There were only five patients whose adverse events were noted on a company-wide database. However, additional patients did report adverse events which were documented in the patient's medical record.

Conclusion

While dalbavancin is indicated as a one or two dose regimen for ABSSSI, it is frequently used off-label for other indications and with extended dosing regimens. Given the infrequent dosing schema and convenient administration methods, dalbavancin offers an advantage over other antimicrobials. Further research of off-label regimens is warranted.

References

1. Dalbavancin (Dalvance) package insert. Madison, NJ; Allergan USA, Inc; 2014 May

Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Lauren Cesare; Christopher Roy; Maria Giannakos; David Shepherd; Joseph Soultatos; Susan Dietze. Nothing to disclose.

www.optioncarehealth.com

©2022 Option Care Health, Inc. All rights reserved.