**Economic and Hospital Resource Impact of Outpatient Antibiotic Treatment for ABSSSI with Oritavancin Compared to Daptomycin**

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**Background**

Acute bacterial skin and skin structure infections (ABSSSI) are the most common cause of emergency department visits and account for 4-6% of all visits. In 2013, 3.4 million ED visits in the United States were related to ABSSSI. Daptomycin and oritavancin are both approved by the FDA for the treatment of ABSSSI.

**Methods**

**Data Source**: The data were obtained from the Premier Hospital Database, one of the largest US hospital clinical and economic databases, with data from more than 500 hospitals, representing all major payer types, and including instructing, teaching, and nonteaching hospitals.

**Study Population**: Patients receiving oritavancin in a hospital setting were compared to patients receiving daptomycin from September 1, 2013 to March 31, 2015. Demographic and clinical characteristics were similar between groups (Table 1). Only patients with approved indications and with an ICD-9 code for ABSSSI were included in the analysis. Patients were stratified into two groups: those who received daptomycin and those who received oritavancin. This analysis focused on the outpatient setting, considering all claims with outpatient antibiotic therapy during the month of therapy.

**Statistical Analysis**: Outcome measures compared between the two groups were days of therapy, laboratory costs, administrative costs, and total costs. Due to the nature of the dataset, it was not possible to identify a control arm that was free of antibiotic therapy.

**Results**

Out of 4,552 patients included in the analysis, 2,194 (48.3%) were treated with oritavancin and 2,358 (51.7%) were treated with daptomycin. Patients treated with oritavancin had a shorter total number of days of therapy compared to those treated with daptomycin (5.1 vs. 5.9 days, p < 0.001) (Figure 3). Laboratory costs were lower for oritavancin than for daptomycin ($2,900 vs. $1,291, p < 0.001) (Figure 4). The total mean cost of ABSSSI treatment with oritavancin was $4,606, which was lower than the total mean cost of treatment with daptomycin ($5,897) (Figure 5). The mean cost of outpatient treatment with oritavancin was $2,500, which was lower than the mean cost of outpatient treatment with daptomycin ($3,500) (Figure 6).

**Conclusions**

This analysis supports that outpatient treatment for appropriate ABSSSI with oritavancin is associated with substantially lower costs compared to daptomycin. The cost savings associated with oritavancin are driven by both lower costs for treatment administration and ABSSSI treatment with oritavancin in the outpatient setting is associated with increased likelihood of completing therapy, reducing the need for costly subsequent hospitalizations.

**Limitations**

As these data were taken from the Premier Hospital Database, they represent the real-world use of oritavancin and daptomycin in the treatment of ABSSSI. However, these data do not represent the true costs of outpatient treatment for ABSSSI as they do not consider costs of subsequent hospital admission. Total costs of care represent only the initial outpatient treatment and do not include costs associated with subsequent hospitalization. This analysis is limited to the outpatient setting and does not include patients who were not in the hospital at the time of treatment. In addition, these data were taken from the Premier Hospital Database, a large US hospital database, and may not be representative of all hospitals. Further studies are needed to confirm these findings in other settings.