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Background

- Dalbavancin (Dalvance®) is a single-dose intravenous (IV) glycopeptide antibiotic approved for the treatment of skin and soft tissue infections (SSTI).
- Bacterial spectrum is similar to vancomycin, covering methicillin sensitive *Staphylococcus aureus* (MSSA), methicillin resistant *Staphylococcus aureus* (MRSA), vancomycin-susceptible *Enterococcus faecalis*, *Streptococcus pyogenes*, and *Streptococcus agalactiae*.
- Advantages to using dalbavancin instead of other antibiotics that require multiple infusions include hospital admission cost savings and ensured adherence to the antibiotic regimen. However, dalbavancin is much more expensive than other gram-positive antibiotics.

Objective

Compare patients who received single-dose dalbavancin in the emergency department to those who were admitted to the hospital for other antibiotics on the following parameters: 30-day readmission rates, cost, and length of stay.

Methods

- Emergency department (ED) utilization of dalbavancin began November 2019. Patient data was collected for a 12-month time frame post-implementation. Sixteen patients received dalbavancin during this time.
- SSTI-related diagnosis codes were used to identify 16 patients admitted to the hospital for IV antibiotics pre-implementation of dalbavancin. These patients were included based on criteria for potential dalbavancin eligibility, listed below.
- Objective parameters were compared based on patient data between the 2 groups.

Inclusion Criteria

- Patients 18 years or older with ABSSSI
- Completion of dalbavancin patient assistance form if not insured

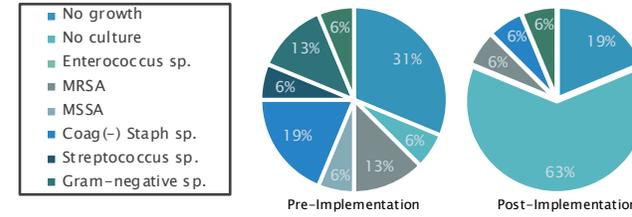
Exclusion Criteria

- Necrotizing fasciitis
- Immunocompromised status
- Cellulitis over a foreign device or prosthesis
- 3 or more systemic findings
- Ocular cellulitis
- Petechiae or purpura
- Diabetic foot infection
- Infection following water exposure
- Animal bite or scratch
- Surgical site infection of groin, axilla, GI, perineum, genital tract

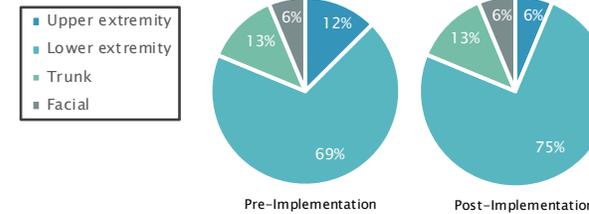
Patient Characteristics

Criteria	Pre-Implementation (n=16)	Post-Implementation (n=16)
Average age (years)	57 (22-102)	51 (19-66)
Gender	F = 4, M = 12	F = 8, M = 8
Weight (kg)	111 (46.6-168.8)	106 (57-220)
Height (cm)	177 (157-192)	169 (150-187)
Serum creatinine	1.89 (0.66-13)	1.21 (0.5-5.2)
Insurance status	Y = 14, N = 2	Y = 15, N = 1
Risk factors for infection		
Homeless	0	0
IV Drug Use	0	0
Diabetes	5	4
Cancer	0	0
Antibiotic use in previous 90 days	8	9

Bacterial Culture Results



Infection Location



Conclusions

- Dalbavancin usage was not associated with an increased incidence in 30-day readmission as compared to pre-implementation antibiotics.
- As all dalbavancin patients were not admitted to the hospital, those treated with it were spared from inpatient medical costs, resulting in lower cost overall as compared to the pre-implementation group.
- Of the pre-implementation group bacterial culture results that had growth, most of these would have been covered by dalbavancin.
- The total cost savings in the post-implementation group was \$14,267.58 as compared to pre-implementation.

Limitations

- Sample size collected for this study was small.
- The timeframe of this study was relatively short.
- There was a delay adoption of dalbavancin by providers post-implementation.
- Most patients who received dalbavancin did not get a bacterial culture.
- It is unknown if patients received follow-up care at other facilities or their primary care provider.

Discussion

- Other studies such as the ENHANCE trial have shown dalbavancin to produce faster discharge times for the treatment of ABSSSI and reduce length of stay. ¹ The results of this study are consistent with our results.
- Dalbavancin has been explored in the literature to also be used to treat other gram-positive associated infections, such as endocarditis and bacteremia. ² Future studies may explore dalbavancin use for these infections as well.

References

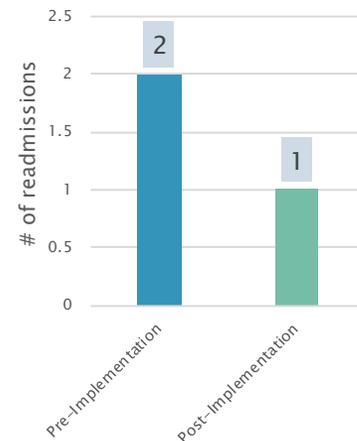
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2. Morrisette T, Miller MA, Montague BT, Barber GR, McQueen RB, Krsak M. On- and off-label utilization of dalbavancin and oritavancin for Gram-positive infections. *J Antimicrob Chemother.* 2019;74(8):2405-2416. doi:10.1093/jac/dkz162

Contact

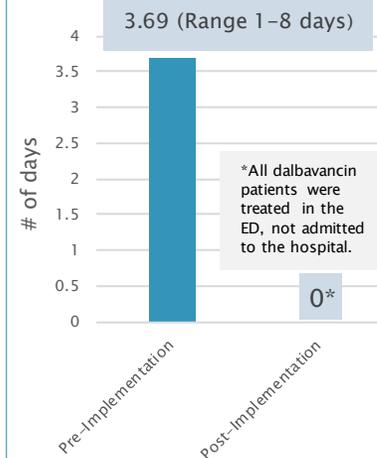
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Results

30-day readmission



Average Length of Stay



Cost

