



# Financial Comparison of a Self-Pay Population Discharged to Receive Dalbavancin versus Standard of Care for Acute Bacterial Skin and Skin Structure Infections

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## Background

- Treatment of acute bacterial skin and skin structure infections (ABSSSI) in the self-pay population often results in uncompensated healthcare costs<sup>1,2</sup>
- Dalbavancin is a 1 dose, 30-minute intravenous (IV) infusion for the treatment of ABSSSI<sup>1</sup>
- Previously, our facility has shown a decreased length of stay and 30-day readmission rate for ABSSSI patients who discharge to receive dalbavancin at our infusion center<sup>1</sup>
- Dalbavancin has a vial replacement program from the manufacturer for self-pay patients that can recoup costs<sup>3</sup>

## Purpose

- Determine cost differences in the treatment of ABSSSI in self-pay patients discharged and treated as an outpatient with dalbavancin compared to traditional inpatient IV antibiotic treatment, standard of care (SOC).

## Methods

- Retrospective cohort of self-pay inpatients diagnosed with ABSSSI from February 2016 through August 2019

### Inclusion Criteria

- Inpatients ≥ 18 years old
- Self-pay insurance status (uninsured)
- ICD-10 codes consistent with ABSSSI (cellulitis, abscess, or post-operative wound infections)
- Received IV antibiotics

### Exclusion Criteria

- Pregnant
- ICD-10 codes not consistent with ABSSSI
- Infections associated with exclusively gram-negative bacteria or fungi
- Patients who did not have vial replacement preformed

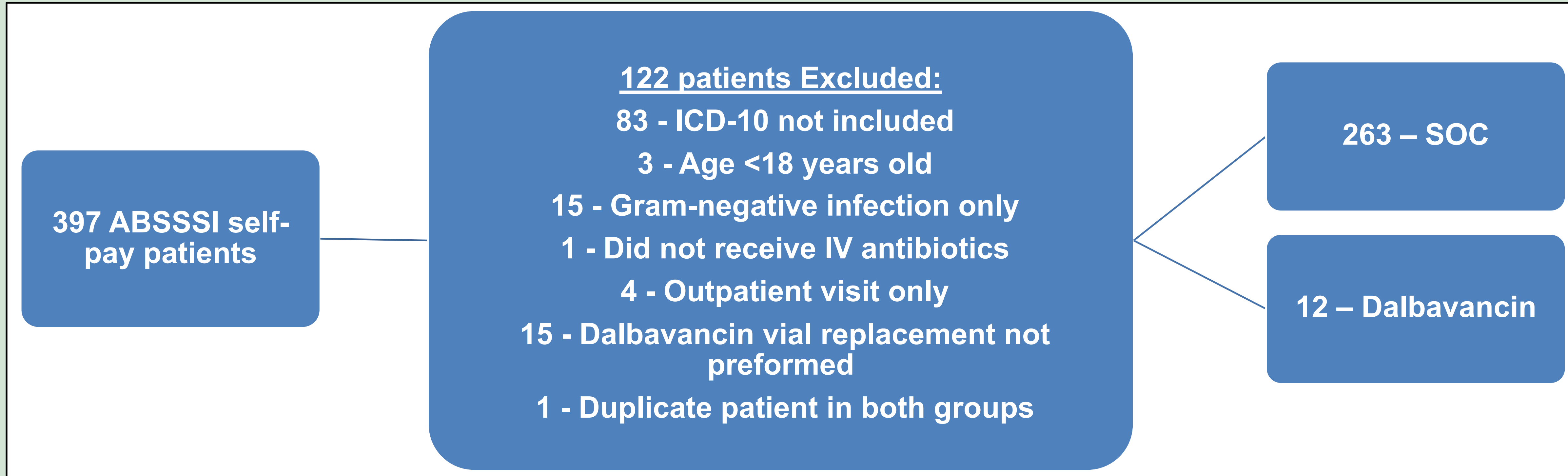
## Outcomes

Primary Outcome	Secondary Outcomes
Direct cost of hospital stay	<ul style="list-style-type: none"> <li>LOS</li> <li>30-day readmission rates</li> <li>Adverse events (AE)</li> <li>Indirect hospital cost</li> </ul>

### Definitions

- Direct Cost:** The monetary value attributed directly to the treatment of infection with IV antibiotics during the patients' inpatient stay
- Indirect Cost:** The monetary values that were not directly related to that specific department.

## Results



Baseline Demographics			
	Dalbavancin (n = 12)	SOC (n = 263)	p-value
Age (mean ± SD)	41.75 ± 6.3	41.71 ± 11.59	0.986
Male Gender - no. (%)	12(100)	159 (60.5)	<b>0.006</b>
Race - no. (%)			
Caucasian	11 (91.7)	163 (62.0)	0.061
African American	1 (8.3)	92 (35.0)	<b>&lt;0.001</b>
Other	0 (0)	8 (3.0)	1.000
Type of Infection - no. (%)			
Cellulitis	9 (75)	177 (67.3)	0.757
Abscess	3 (25)	79 (30.0)	<b>0.002</b>
Wound/Surgical Site	0 (0)	7 (2.7)	1.000
Vitals/comorbidities - no. (%)			
BMI initial (≥ 30 kg/m <sup>2</sup> )	4 (33.3)	109 (41.4)	0.766
Tmax initial (> 100.4° F)	2 (16.7)	65 (24.7)	0.736
WBC ≥ 12,000/mm <sup>3</sup>	4 (33.3)	114 (43.4)	0.564
DM	6 (16.7)	53 (20.2)	1.000
HTN	3 (25)	73 (27.8)	1.000
ABSSSI history	4 (33.3)	59 (22.4)	0.480
Smoker	8 (66.7)	144 (54.8)	0.557
IV drug user (IVDU)	3 (25)	36 (13.7)	0.387
ID consult	10 (37)	126 (47.9)	<b>0.019</b>

Primary Outcome			
	Dalbavancin (n = 12)	SOC (n = 263)	p-value
Total direct cost of hospital stay, U.S.\$ per patient	\$2,758	\$4,010	0.105

Secondary Outcomes			
	Dalbavancin (n = 12)	SOC (n = 263)	p-value
Total indirect cost, U.S.\$ per patient	\$2913	\$3646	0.162
Median LOS - no. days [IQR]	4 [2.8-4.3]	4 [2-6]	0.888
30-day readmission rate - %	8.3	7.2	0.604
Adverse Event - no. (%)			
Hospital-acquired infection	0 (0)	2 (0.8)	1.000
AKI	0 (0)	33 (12.6)	0.371
Documented infusion reaction	0 (0)	4 (1.5)	1.000

## Discussion

- Direct cost (\$2,758 vs \$4,010, p=0.105) and indirect hospital cost (\$2,913 vs \$3,645, p=0.162) per patient was less in the dalbavancin group
- There was no significant difference between median LOS (4 vs 4, p=0.888), AE (0% vs 14.8%), and 30-day readmission rates (8.3% vs 7.2%, p=0.604) for dalbavancin vs SOC group
- Limitations:
  - Patients were not randomized
  - Secondary codes could have influenced LOS or prohibited dalbavancin therapy
- Future analysis could include analyzing additional subgroups (e.g. IVDU)
- 15 patients did not have vial replacement performed, which identified the need for a performance improvement in our institution

## Conclusion

- Dalbavancin, with vial replacement, in a self-pay patient population resulted in decreased direct and indirect cost per patient with similar 30-day readmission rates, AE, and LOS

## References

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