

Assessment of Expedited Discharge and Readmissions with Inpatient Oritavancin Administration

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Introduction

- Patients with acute bacterial skin and skin structure infections (ABSSSI) are often admitted and prescribed intravenous (IV) antibiotics. These cases are frequently associated with a prolonged hospital length of stay and increased costs for hospital systems.
- Oritavancin (ORB) is a lipoglycopeptide antibiotic indicated for ABSSSI, administered as a single 1200mg IV dose given over three hours. One dose completes a full course of treatment and eliminates the need for further IV antibiotics and patient compliance.
- We have previously determined that inpatient ORB use decreases total hospital length of stay and ABSSSI readmissions.
- Patients who receive ORB in our hospital should be discharged following the infusion per protocol, decreasing costs from extended hospitalization.

Objective

The purpose of this study is to determine the rate of same day discharge following ORB inpatient administration, as well as the 30-day ABSSSI readmission rate in this population.

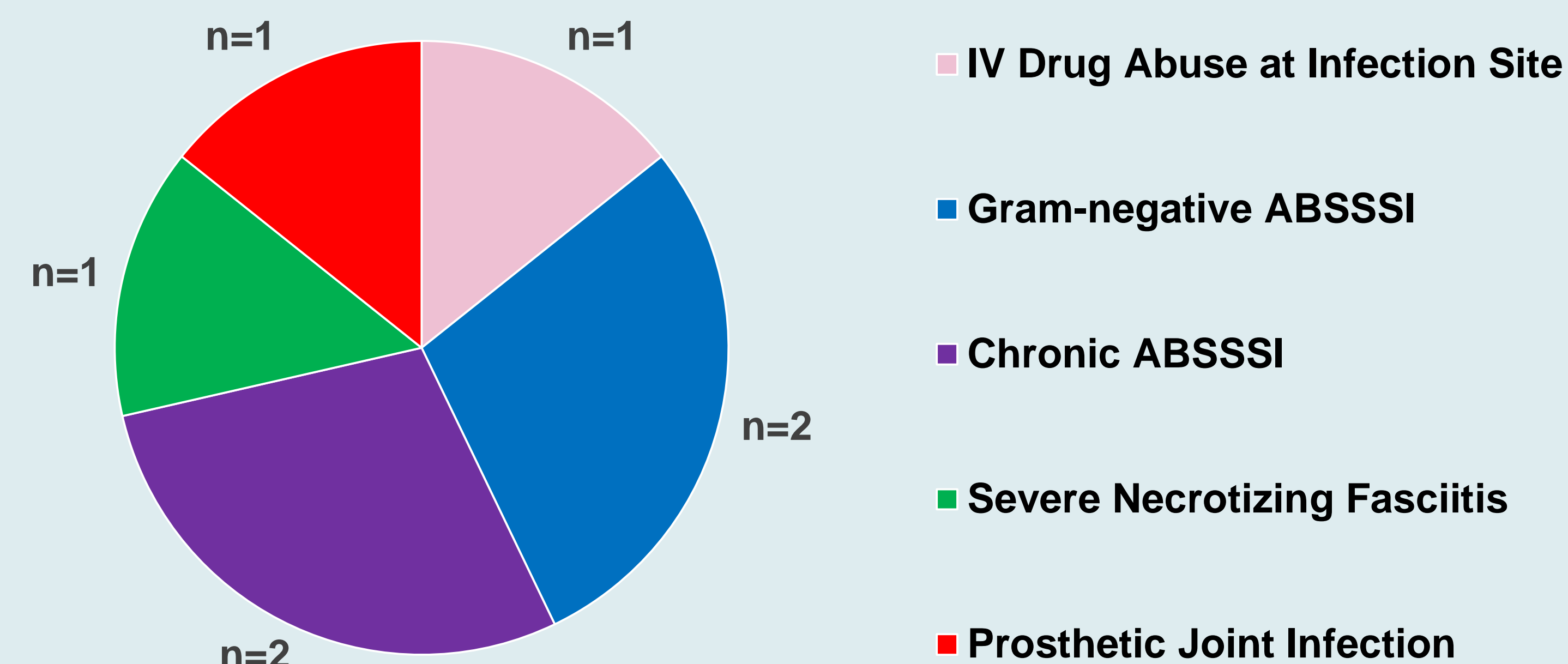
Methods

- Through a report generated by McKesson Explorer, an analytics software that runs pre-specified drug usage reports at our institution, subjects were identified for this retrospective study if they were administered ORB as an inpatient between January and August 2023. Eighty four total patients were evaluated and included in this study.
- Patients were excluded from the study if they received ORB for indications other than ABSSSI.
- Medical records were reviewed and data collection included total length of stay and the rate of inpatient readmissions for ABSSSI within 30 days of discharge.
- Hospital admissions and readmissions were reviewed and analyzed. The rate of same day discharge, reasons for failure to discharge within 24 hours, rate of 30-day readmissions, and reasons for readmission are presented as applicable.
- Approval by the institutional review board at ARMC was obtained.

Table 1. Patient Characteristics & Findings (n=84)

Average age in years – no. ± SD		57.5 ±14.7
Male – no. (%)		53 (63.1%)
Caucasian – no. (%)		68 (81.0%)
LOS prior to ORB administration (days) – no. (range)		3.7 (0-18.5)
Median time to discharge after ORB administration (hours) – no. (range)		5.0 (0-507)
Patients not discharged same day– no. (%)		14 (16.7%)
Reasons for Delayed Discharge: (n=14)	Pending lab work – no. (%)	4 (28.6%)
	No transportation – no. (%)	2 (14.3%)
	Not medically cleared – no. (%)	2 (14.3%)
	Patient refusal – no. (%)	2 (14.3%)
	Unclear – no. (%)	2 (14.3%)
	Waiting for case management – no. (%)	1 (7.1%)
	New diagnosis – no. (%)	1 (7.1%)

Figure 1. ABSSSI 30-Day Readmissions (n=7, 8.3%)



Discussion

- Of 84 inpatients receiving ORB for expedited ABSSSI discharge, 83.3% (n=70) were promptly discharged according to protocol. Fourteen patients (16.7%) were not discharged the same day as ORB administration. The most common reason for failing to discharge was pending lab work. Other reasons included lack of patient transportation, patient refusal, and the patient not medically cleared from their Attending physician (**Table 1**).
- At least 11 of 14 (78.6%) cases of late discharge were avoidable due to a lack of coordination by the healthcare team. Two cases were unclear, lacking documentation of reasons for late discharge.
- Of all 84 ORB-treated patients, 91.7% (n=77) were not readmitted with ABSSSI in the following 30 days. Seven patients (8.3%) were readmitted within 30 days of hospital discharge with ABSSSI. Reasons for readmission included a new skin infection with gram-negative rods (n=2) and persistence of chronic cellulitis (n=2) (**Figure 1**).
- Out of 7 readmitted patients, 3 were not candidates for ORB according to our hospital protocol. Chronic persistent ABSSSI infections and necrotizing fasciitis are not our preferred indications for inpatient ORB use.
- The overall average LOS was 4.5 days (median 3.1 days) in our patients, but an average of 3.9 days (median 3.1 days) when inpatient ORB use was protocol compliant. These findings suggest ORB is appropriately associated with same day hospital discharge and prevention of hospital readmissions in hospitalized patients with ABSSSI.

Conclusion

Our findings demonstrate that inpatient ORB use can expedite discharge in ABSSSI patients and is associated with a low 30-day readmission rate. Improvement opportunities exist regarding provider education to enhance our ORB protocol compliance.