

# Use of Dalbavancin in Facilitating Discharge of High Risk Patients in Low Resource Settings

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## Abstract

### Background

Patients who inject intravenous drugs (PWID) can have devastating infections with poor outcomes while being burdensome to the healthcare system, both in terms of lack of payment and length of stay. These issues are only exacerbated in settings where addiction treatment resources such as medication assisted therapy (MAT) are limited. One potential method of alleviating some of this burden is with long acting glyco-lipopeptide antibiotics, such as dalbavancin, to reduce length of stay.

### Methods

A retrospective evaluation of 10 PWID patients treated with dalbavancin to facilitate early discharge was performed at Prisma Health Richland hospital in 2019. Reduction in length of stay was calculated based on estimated length of stay typical for treatment of their clinical syndrome.

### Results

Average length of stay was reduced by 22.4 days. 9 of the patients were seen inpatient, and one was evaluated outpatient. 4 patients (40%) had documented mental illness in their chart diagnoses, and 7 (70%) of patients were uninsured. 4 (40%) of patients had a history of leaving AMA, 2 (20%) were rehospitalized within 30 days. Of these 10 patients, only 1 patient who already had been following as an outpatient had appropriate follow-up with an Infectious Disease specialist after treatment.

### Discussion

Long acting glyco-lipopeptide antibiotics can facilitate discharging patients from an inpatient setting where status as PWID cannot be managed in an outpatient setting. On average, a little over 3 weeks was saved in terms of hospital days, which is a significant savings for the hospital system. However, it remains unclear how much this benefits the patient as follow-up for this treatment was abysmal and thus it is difficult to assess for the clinical response. Further evaluation is required to the utility of such treatments, as well as the implementation of MAT and more widespread assistance for this vulnerable population

## Objectives

- **Primary:**
  - To evaluate if dalbavancin use was associated with reduced length in stay in PWID
- **Secondary:**
  - To assess follow-up in patients who had received dalbavancin therapy
  - To evaluate known variables in PWID that can make treatment challenging and assess for them in this population

## Introduction

- Injection drug use is an increasing public health problem associated with endocarditis and other infections<sup>1,2</sup>
- While opiates are often thought to be the primary drug of choice, rates of drug use with other substance such as cocaine and amphetamines is also increasing<sup>3</sup>
- PWID are more likely to leave the hospital AMA<sup>4</sup>
- Outcomes in this population are poor<sup>5</sup>
- While evidence abound that outpatient treatment with antibiotics can be done safely in PWID,<sup>6,7</sup> the full array of services necessary are not always available in resource poor settings
- One alternative strategy to reduce length of stay in patients who inject intravenous drugs is to use long acting glyco-lipopeptide antibiotics

## Methods

- **Study Design**  
Retrospective evaluation of 10 PWID
- **Time Frame:** 2019, Prisma Health Richland
- **Data analyzed included:**  
Mental illness  
Insurance Status  
Rehospitalization  
Inpatient/Outpatient

## Results

- 9 inpatient and 1 outpatient was treated with dalbavancin
- Average length of stay was reduced by 22.4
- 40% of patients had documented mental illness
- 70% of patients were uninsured
- 20% of patients were hospitalized within 30 days
- 10% of patients followed up in an outpatient setting

## Conclusions

- When compared to staying inpatient for the duration of treatment, dalbavancin reduced length of stay by over 3 weeks on average
- Appropriate follow-up was not obtained in these patients, leaving the efficacy of treatment unknown
- In resource poor settings, dalbavancin may facilitate discharge, but more measures are required to ensure appropriate treatment in PWID

## References

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