

## Authors

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## Background

•250,000 patients receive outpatient parenteral antimicrobial therapy (OPAT) in the U.S. each year<sup>1,2</sup>

•Vancomycin is the most commonly prescribed antibiotic in OPAT at University of Utah Health (UUH)

•It is associated with higher rates of adverse drug reactions leading to discontinuation than other OPAT therapies<sup>3,4</sup>

## Methods

### Inclusion Criteria

- Patients followed by UUH infectious disease (ID) physicians for OPAT
- Discharged with an order for vancomycin for planned duration > 7 days
- Scheduled for follow-up visit with UUH ID service

### Exclusion Criteria

- Pregnant women
- <18 years of age
- Patients requiring any form of renal replacement therapy

Single-center, retrospective, cohort analysis by electronic health record chart review

### PRIMARY OUTCOME

Discontinuation rate of vancomycin OPAT due to an ADR in patients discharged from UUH facilities and followed by UUH ID physicians

### SECONDARY OUTCOMES

-Subgroup analysis based on:

- Infusion service used
- Timing of 1<sup>st</sup> vancomycin level
- Charlson comorbidity index score
- Indication for vancomycin

-Rate of unplanned readmissions

-Timing of ADR leading to discontinuation of vancomycin OPAT

# Factors associated with adverse drug reactions (ADRs) leading to discontinuation of vancomycin in outpatient parenteral antimicrobial therapy (OPAT)

## What factors are associated with increased risk of having an ADR that leads to discontinuation of vancomycin OPAT?

## 18% of patients on vancomycin OPAT followed by UUH ID providers discontinued therapy due to ADR

## Higher rate of 30-day unplanned readmission if an ADR led to vancomycin OPAT discontinuation (25% vs 8%, P <0.001)

## Rate of discontinuation of vancomycin OPAT due to ADR at UUH is similar to what has been described in previous literature. Rate of unplanned readmissions is an area that warrants further study

## Statistical Analysis

- Chi-square or Fisher's Exact test for all outcomes

## Results

250 patient charts evaluated  
October 25 2018 to July 31,  
2019

158 patients met inclusion

92 Patients excluded

Pregnant: 1  
Renal replacement Therapy: 14  
Vancomycin planned duration < 7 days: 32  
No UUH ID follow up planned: 45

158 patients included in  
final analysis

## Statistically Significant Secondary Outcomes

- Those who had an ADR leading to vancomycin OPAT discontinuation were more likely to have:
- Used UUH infusion services (54% vs 21%, P <0.001)
- Had plasma concentration <7 days from discharge (92% vs 71%, P <0.001)

## Further Discussion

- Ease of communication in UUH system and earlier monitoring of vancomycin trough levels possibly could be reason for higher rates of ADR related discontinuations in these groups
- Future areas for research stemming from this study include cost of vancomycin discontinuations and comparisons of monitoring practices among home infusion services

## References

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## Disclosures

- This study was reviewed and exempted by the University of Utah IRB
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