Connecticut Society of Health System Pharmacists Great 8 Abstract

Abstract Title

Efficacy of secondary oral vancomycin prophylaxis (OVP) in a high-risk patient population receiving systemic antibiotics

Authors

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Background

Clostridioides difficile infection (CDI) is a common cause of antibiotic-associated diarrhea. Each infectious episode increases the risk for recurrence, resulting in increased morbidity and mortality. Oral vancomycin has been extensively studied for the treatment of CDI, however there is no formal consensus on its efficacy in secondary prevention. Evaluating the use of OVP in patients at high risk for recurrent CDI may provide additional evidence for efficacy in secondary prevention and help guide clinicians with selecting an appropriate dose and duration of therapy.

Methods

This study was an Institutional Review Board approved multicenter, retrospective chart review within a large healthcare system that evaluated the efficacy of OVP to prevent recurrent CDI in patients at high risk for recurrence who received systemic antibiotics between September 3, 2019, and December 31, 2022. Patients were included if they were 65 years or older, or at least 18 years old and immunocompromised, with a history of CDI in the past 12 months, who received at least one dose of a systemic antibiotic. High-risk patients receiving OVP were compared against high-risk patients who qualified yet did not receive secondary OVP. Patients were excluded from this study if they had an oral vancomycin allergy, received concurrent treatment with fidaxomicin, were not categorized as high-risk, or were hospice patients not expected to survive the hospital stay. The primary outcome was CDI within 90 days of discontinuing systemic antibiotics. Secondary outcomes included any CDI reoccurrence within 90 days that led to hospitalization or death due to all causes. Among patients hospitalized for CDI, the length of stay and need for intensive care unit level of care or surgery was calculated.

Results

Of the 1,467 screened patients, a total of 100 patients, with 50 patients in each cohort, met the study inclusion criteria. Similar baseline characteristics between groups were gender, ethnicity, immunocompromised status, number of toxin-positive CDI within 12 months, and antibiotic choice for initial CDI. Notably, the OVP cohort was younger, received a longer duration of therapy for the initial episode of CDI, had an increased length of time on systemic antibiotics, and were more likely to have an infectious diseases consult. Sixty-three percent of patients in the OVP group received more than 125 mg of vancomycin per day compared to 37% of patients that received the guideline-recommended regimen of 125 mg daily. There was no difference in the incidence of CDI recurrence within 90 days of discontinuing systemic antibiotics between patients who received OVP and those who did not [7/50 (14%) vs 5/50 (10%); P=0.760]. There was also no difference in the incidence of hospitalization due to CDI [5/50 (10%) vs 3/50 (6%); P=0.715] or all-cause mortality [5/50 (10%) vs 5/50 (10%); P=1.00] in the OVP cohort as compared to the non-OVP cohort, respectively.

Conclusions

This retrospective, multicenter chart review did not identify a difference in CDI recurrence within 90 days of discontinuing systemic antibiotics in a cohort of high-risk patients who received OVP as compared to those who did not. The findings of this study are limited by the imbalance in the baseline characteristics between the two cohorts and higher than guideline-recommended daily doses used in the OVP group. Larger, prospective, randomized, controlled trials that utilize a low-dose oral vancomycin regimen are necessary to determine if OVP successfully prevents recurrence.