

In the OPAT setting, vancomycin use was associated with higher incidence of ADEs than daptomycin use. This finding is an important policy consideration for programs aiming to optimize outcomes and minimize cost. Careful selection of gram-positive agents for prolonged treatment is necessary to limit toxicity” Schrank et al (2018).

Abstract:

OBJECTIVE: Outpatient parenteral antimicrobial therapy (OPAT) is a safe and effective alternative to prolonged inpatient stays for patients requiring long-term intravenous antimicrobials, but antimicrobial-associated adverse events remain a significant challenge. Thus, we sought to measure the association between choice of antimicrobial agent (vancomycin vs daptomycin) and incidence of adverse drug events (ADEs).

METHODS: Patients receiving OPAT treatment with vancomycin or daptomycin for skin and soft-tissue infections, bone and joint infections, endocarditis, and bacteremia or endovascular infections during the period from July 1, 2013, through September 30, 2016, were included. Demographic and clinical data were abstracted from the medical record. Logistic regression was used to compare ADEs requiring a change in or early discontinuation of therapy, hospital readmission, and emergency room visits between groups. Time from OPAT enrollment to ADE was compared using the log-rank test.

RESULTS: In total, 417 patients were included: 312 (74.8%) received vancomycin and 105 (25.2%) received daptomycin. After adjusting for age, Charlson comorbidity index, location of OPAT treatment, receipt of combination therapy with either β -lactam or fluoroquinolone, renal function, and availability of safety labs, patients receiving vancomycin had significantly higher incidence of ADEs (adjusted odds ratio, 3.71; 95% CI, 1.64-8.40). ADEs occurred later in the treatment course for patients treated with daptomycin ($P < .01$). Rates of readmission and emergency room visits were similar.

CONCLUSIONS: In the OPAT setting, vancomycin use was associated with higher incidence of ADEs than daptomycin use. This finding is an important policy consideration for programs aiming to optimize outcomes and minimize cost. Careful selection of gram-positive agents

for prolonged treatment is necessary to limit toxicity.

Reference:

Schrank, G.M., Wright, S.B., Branch-Elliman, W. and LaSalvia, M.T. (2018) A retrospective analysis of adverse events among patients receiving daptomycin versus vancomycin during outpatient parenteral antimicrobial therapy. *Infection Control and Hospital Epidemiology*. June 12th. .

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