

Title: Management of Statins with Daptomycin Therapy

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Abstract

Introduction: The administration of hydroxymethylglutaryl-coenzyme A (HMG CoA) reductase inhibitors, or statins, for the reduction in risk or secondary prevention of atherosclerotic events carries a risk of developing muscle related myopathies. The cyclic lipopeptide antibiotic daptomycin also carries this risk, with typical monitoring occurring through baseline and weekly creatine phosphokinase (CPK) levels. The co-administration of the two medications poses a clinical dilemma due to the increased risk of elevated CPK levels and resulting myopathies. Little data exists surrounding what occurs in clinical practice with this drug-drug interaction and the implications thereof. Therefore, the objective of this study is to evaluate if patients admitted on statin therapy receive co-administration with daptomycin and the resulting effects on CPK lab values. **Methods:** This was an IRB approved, retrospective, chart review study. Patient charts ages 18 years old or older who received daptomycin therapy for a minimum of five consecutive days inpatient were obtained and then manually screened for home medications of statins. If a home medication of a statin was reported, this was considered inclusion criteria for the study. Statin status, continuation or discontinuation, was then recorded as well as baseline and weekly CPK lab values when charted. **Results:** A total of 82 patient charts were reviewed for this study. Statin medications were continued with daptomycin therapy in 80.49% (N = 66) of patients during their entire inpatient stay. The average number of CPK lab values assessed per patient was 1.59 (SD \pm 1.00). Four patients experienced CPK elevations of greater than 200 IU/L, with only one of these patients receiving both statin and daptomycin therapy. **Conclusion:** The co-administration of a statin with daptomycin therapy occurs during clinical practice, with

infrequent incidence of elevation in CPK levels. The co-administration of both therapies with CPK monitoring may be a safe option for some patients.