

## Optimizing Dental Prophylaxis in Patients with Prosthetic Joints

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### Abstract:

Antibiotic prophylaxis prior to dental procedures in patients with prosthetic joints has not been shown to decrease the risk of prosthetic joint infections (PJI). Accordingly, the 2016 American Academy of Orthopedic Surgeons (AAOS) guidelines indicate that prophylaxis for low-risk patients is rarely indicated, and that prophylaxis with agents such as clindamycin is not recommended due to adverse effects of therapy. Despite this, prophylactic antibiotics are often prescribed in this population. A recent retrospective chart review at the University of Rochester Medical Center demonstrated that 93% of prophylactic antibiotics prescribed by orthopedic surgeons to patients with prosthetic joints prior to dental procedures were not indicated. The goal of this study was to improve provider understanding of and adherence to AAOS guidelines regarding antimicrobial prophylaxis. This was achieved via the creation of an order set with an AAOS calculator for appropriateness of antimicrobial prophylaxis and provision of formal educational sessions to prescribers. Pre- and post-educational session surveys were collected to determine the impact of the lessons on the prescribers' level of understanding. Results demonstrated a 27.2% improvement in ability to correctly identify appropriateness of antibiotic use and a 49.2% improvement in ability to correctly identify proper antibiotic type when indicated. Preliminary data shows improved provider understanding of AAOS guidelines following formal education. Retrospective chart review of prescriber data will be performed in 6 months to further assess the durability of impact.