INTRODUCTION:
Intra-articular injections continue to be a nonsurgical treatment modality for hip osteoarthritis (OA). Studies suggest a temporal relationship between injection prior to total hip arthroplasty (THA) and infection rates but are potentially limited by inadequate characterization of laterality and relatively small sample sizes. The purpose of this study was to determine if a temporal relationship exists between intra-articular hip injections prior to THA and infection. Specifically, we asked: 1) do patients who receive hip injections within three months of THA have a higher incidence of prosthetic joint infections (PJIs) or surgical site infections (SSIs)?, and 2) do these patients incur higher 90-day costs?

METHODS:
Patients with hip injections prior to THA were identified using a national database from 2010 to 2019. Three laterality-specific groups (injection 0 to 3 months, 3 to 6 months, and 6 to 12 months prior to THA) were compared to a matched cohort without prior injection (n = 277,841). Primary outcomes included (prosthetic joint infections) PJIs, SSIs, and total costs of care.

RESULTS: Patients who had injections within 3 months of THA had a higher incidence of PJIs at 90-days (5.1 vs. 1.6%, p<0.01) and 1-year (6.8 vs. 2.1%, p<0.01), when compared to the matched cohort. They also had a higher incidence of SSIs at 90-days (2.8 vs. 1.2%, p<0.01) and 1-year (3.7 vs. 1.7%, p<0.01). Mean costs were 13.7% higher in this injection cohort. Patients who had injections between 3 to 6 months prior to THA had higher postoperative PJIs at 90-days (2.6 vs. 1.6%, p<0.04), while those with injections beyond 6 months had no differences in PJIs (p≥0.46).

DISCUSSION AND CONCLUSION:
Patients who receive hip injections within 3 months of undergoing primary THA are at increased risk for postoperative PJIs, SSIs, and higher costs. This study reaffirms guidelines for when to perform THAs in these patient populations.