Billing for Intraosseous Antibiotic Delivery with Knee Arthroplasty: What Happens to CPT 36680?

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INTRODUCTION:
Intraosseous (IO) antibiotic delivery, specifically vancomycin, administered with the tourniquet inflated and prior to incision, has been shown to achieve significantly higher local antibiotic concentrations than intravenous administration. Emerging evidence suggests this may lower periprosthetic joint infection rates for revision and primary total knee arthroplasty (TKA). To understand the real-world application of this procedure, which has its own Current Procedural Terminology (CPT) code, we sought to describe the reimbursement collected in a consecutive series of patients.

METHODS:
Data from 140 cases undergoing IO antibiotic delivery at the time of 132 primary and eight revision TKAs during a recent three-month period at a regional private practice were identified using CPT code 36680. The primary payor, surgical setting, amount charged, and amount collected were summarized, and associations tested using ANOVA.

RESULTS:
The primary payor was Medicare for 58 (41%), Medicare Advantage for 43 (31%), commercial for 30 (21%), and Medicaid for 9 (6%). The setting was inpatient for 5 (4%), hospital outpatient for 70 (50%), and ambulatory surgery center for 65 (46%). For all cases, the code was charged with amounts ranging from $90 to $259, and reimbursement was collected in 102 cases (73%) with amounts ranging from $4 to $56 and mean of $31. While having any collection was not associated with payor type, the amount collected varied from a mean of $25 for Medicaid to $28 for Medicare and Medicare Advantage to $44 for commercial insurance, P<.001. Setting was not associated with reimbursement.

DISCUSSION AND CONCLUSION:
TKA surgeons should be aware of CPT 36680 when performing IO antibiotic delivery, should list this procedure, and work with their practice or hospital to ensure it is charged. Given that the current amount collected may not cover the time and equipment utilized, further work is necessary to understand the implementation of IO antibiotic delivery.