

Trends in Reimbursement for 1- vs. 2-Stage Exchange Arthroplasty for Chronic Periprosthetic Joint Infection

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INTRODUCTION:

Emerging evidence suggests similar efficacy of 1-stage and 2-stage revision for chronic periprosthetic joint infection (PJI) of the hip and knee. However, there is concern that extended surgical time and lower reimbursement for 1-stage exchange may disincentivize surgeons from performing this procedure.

METHODS:

Reimbursement data was reviewed from 200 consecutive patients enrolled in a prospective, randomized controlled trial evaluating 1- vs. 2-stage exchange for chronic PJI between 2016-2022. One patient was excluded from the final analysis due to incomplete reimbursement data. Reimbursements were converted to 2022 inflation-adjusted dollars to standardize the data. Mean reimbursements for 1- and 2-stage exchange were compared, and subgroup analyses based on procedure type (THA or TKA), insurance status (Medicare or private), and Current Procedural Terminology (CPT) codes were performed. Student's *t*-tests were used to assess for differences in continuous variables and Chi-square tests for categorical variables.

RESULTS:

The final cohort consisted of 98 patients undergoing 1-stage and 101 patients undergoing 2-stage exchange. There was no significant difference in insurance status between cohorts. Mean combined reimbursement for 2-stage exchange was significantly greater than for 1-stage exchange (\$4,342.40 vs. \$3,382.40; $p < 0.001$). Reimbursements for both 1- and 2-stage exchange did not change significantly over the study period but varied substantially based on CPT coding. CPT codes 27487/27488 and 27091/27134 when billed together consistently yielded the greatest reimbursement for 1-stage exchange knee and hip procedures, respectively.

DISCUSSION AND CONCLUSION:

Reimbursement for 1-stage exchange is lagging significantly behind 2-stage exchange, despite emerging data which has demonstrated its efficacy for infection eradication and potential for reduced patient morbidity. In an era of decreased reimbursement, a 28% discrepancy in treatment alternatives will discourage superior evidence-based treatment.