

Does Femoral Component Cementation Affect Costs or Clinical Outcomes After Hip Arthroplasty in Medicare Patients?

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Introduction: Although cementless femoral fixation in total hip arthroplasty (THA) is known to contribute to higher complication and reoperation rates when compared to cemented fixation, utilization of cementless femoral fixation continues to rise. New data is available from the Centers for Medicare and Medicaid Services (CMS) regarding total costs of care per surgical episode. Using this data, we investigated whether femoral cementation affects: (1) 90-day costs; (2) readmission rates; (3) re-operation rates; (4) length of stay (LOS); and (5) discharge disposition for Medicare patients undergoing THA.

Methods: We performed a multicenter retrospective cohort study of 1,671 primary THA cases in Medicare patients. CMS data was used to evaluate lump costs including the surgical admission and early postoperative period. Costs were correlated with clinical outcomes from electronic medical record review. Multiple regression analyses were performed to assess differences in costs and outcomes.

Results: Controlling for cohort differences, cemented patients were significantly more likely to be discharged home compared to cementless patients. Cemented patients also demonstrated trends toward lower costs, lower readmission rates, and shorter LOS compared to cementless patients. All reoperations within the early postoperative period occurred in patients managed with cementless femoral fixation.

Conclusions: In a large Medicare population, cemented femoral fixation outperformed cementless fixation with respect to discharge disposition and also trended toward superiority with regards to LOS, readmission, cost of care, and reoperation. Cemented femoral fixation remains relevant and useful despite the rising popularity of cementless fixation. Orthopaedic surgeons in training should become competent with femoral cementation technique.