Preoperative Cardiology Consultation Prior to Hip Arthroplasty for Femoral Neck Fracture Rarely Changes Medical Management, Increases Costs, and Delays Treatment

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INTRODUCTION: Several small studies have suggested that cardiology consultation prior to surgical management of hip fractures is often overutilized and associated with extraneous testing and delayed care. This study used a large institutional registry to investigate adherence to clinical practice guidelines (CPGs) for cardiology consults, outcomes, and costs in femoral neck fracture (FNF) patients who underwent total hip arthroplasty (THA) or hemiarthroplasty (HA).

METHODS: A retrospective review identified 2,717 patients who underwent THA or HA for FNF between 12/31/2017-1/29/2024 across a single hospital enterprise. Patients who received a preoperative cardiology consult were propensity-matched for age, gender, and comorbidities to those without a cardiology consult. Cardiology consult patients were divided into appropriate or inappropriate consult cohorts based on American College of Cardiology/American Heart Association CPGs and sub-analyses were performed using the same propensity match. Outcomes of interest included time to surgery (TTS), length of stay (LOS), mortality, and total cost of admission. Shapiro-Wilk tests for normality were performed. Kruskal-Wallis tests and a conditional logistic regression model were used for statistical analyses.

RESULTS: A total of 108 (4%) patients received a preoperative cardiology consult and were reviewed by 2 orthopedic surgeons and a fellowship-trained cardiologist. Of the 108 cardiology consult patients, 46 (43%) consults were deemed appropriate and 62 (57%) were deemed inappropriate. There was no change to medical management in 78 (72%) patients, and only 8 (7%) required a cardiac angioplasty prior to surgery. Cardiology consult patients had greater TTS (51 versus 27 hours, $p<0.001$), LOS (8 versus 6 days, $p=0.027$), 30-day mortality (17% versus 6%, $p=0.016$), 90-day mortality (25% versus 12%, $p=0.022$), and total costs ($40,062 versus $28,899, $p<0.001$) compared to matched control patients without a cardiology consult. Both appropriate and inappropriate cardiology consults were associated with >24 hour delays in surgery ($p<0.001$) and significantly greater total costs (appropriate: $42,326 versus $30,222, $p=0.002$; inappropriate: $36,133 versus $29,830, $p=0.037$) compared to matched controls, but there were no differences in LOS or 30- and 90-day mortality.

DISCUSSION AND CONCLUSION: Cardiology consultation is often unwarranted in FNF patients who undergo hip arthroplasty, resulting in increased costs and delays in treatment without adding measurable value in perioperative care. Greater adherence to established CPGs is recommended to optimize patient care while reducing wasteful resource allocation.