



## Medicare's Hospital Acquired Conditions Policy: A Problem of Non-Payment After Total Joint Arthroplasty

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**Introduction:** In 2008, CMS adopted a policy of non-payment for inpatient Hospital Acquired Conditions (HACs), but the epidemiology of HACs after Total Joint Arthroplasty (TJA) has not been explored. The purpose of this study was to explore the incidence of, risk factors for, and national costs of HACs after TJA.

**Methods:** The 2007 – 2011 Nationwide Inpatient Sample (NIS) was queried for patients undergoing elective THA/TKA. International Classification of Disease-9th Revision (ICD-9) codes were used to define diagnostic groups of THA/TKA and the presence or absence of HACs. The CMS HAC definitions were used, and each was identified using ICD-9 codes. Bivariate analysis was used to compare patient, case, and hospital characteristics in those with and without a HAC, and multivariate analysis was used to identify independent risk factors.

**Results:** 2.6 million cases of TJA were identified between 2007 and 2011. Of those, 69.2% were TKA and 30.8% THA. The incidence of HACs was 1.3% (34,375) for TKA and THA. The top three reasons for HAC were DVT/PE (47.2%), fracture/dislocation (37.5%), and surgical site infection (10.6%). Risk factors for HAC included, advanced age, female gender, lower income level, and pulmonary circulatory disorders ( $p < 0.005$  for all). In TJA patients, the average hospital LOS (3.2 vs 5.7 days,  $p < 0.001$ ), and mean hospital costs (\$17,676 vs \$24,102,  $p < 0.001$ ) were significantly higher in patients experiencing a HAC. Over the 5 years period, HACs resulted in a potential hospital payment loss of greater than \$200 million in reimbursements.

**Conclusions:** The incidence of HAC after TJA is low, but not insignificant at 1.31%. Patients with HAC incur almost twice the hospital LOS, and 30% higher costs. Non-payment for HAC has financial implications. Surgeons and other stakeholders should use this data to better understand the implications of HACs at their institution and work towards minimizing occurrence.