

Does Physician Reimbursement Correlate to Risk in Orthopaedic Trauma?

Rachel V. Thakore, BS; Cesar S. Molina, MD; William T. Obremsky, MD, MPH, MMHC;

Manish K. Sethi, MD

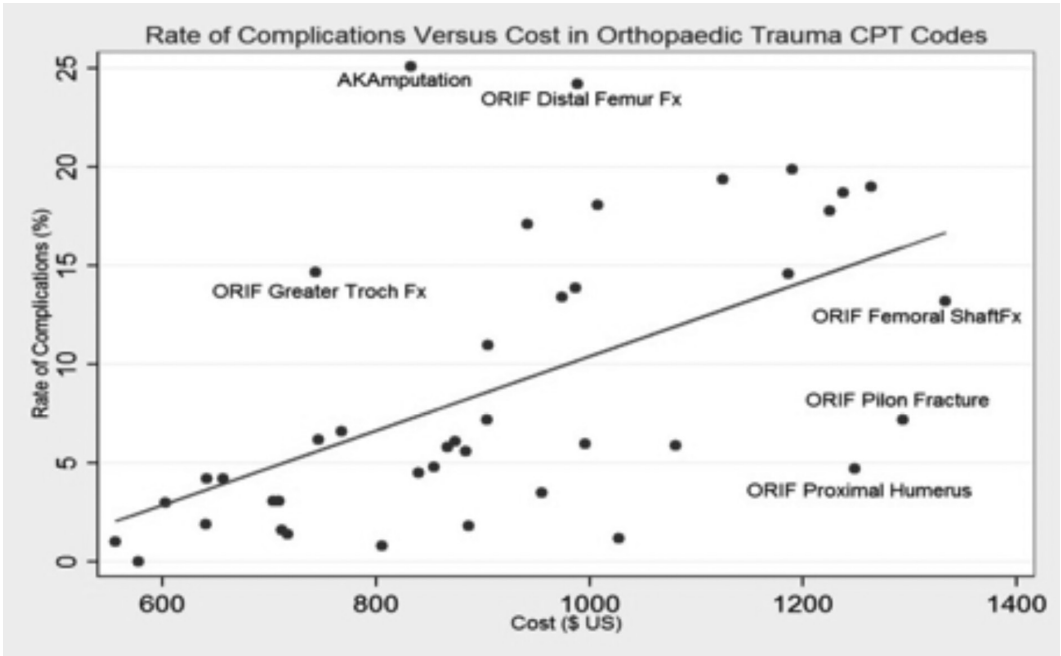
Vanderbilt University, Nashville, Tennessee, USA

Purpose: With the recent dramatic changes in the American health-care landscape, orthopaedic trauma reimbursement models are likely to also shift. But in developing new reimbursement policy, how will the risk of complications for a given injury be considered? Utilizing the ACS-NSQIP (American College of Surgeons National Surgical Quality Improvement Program) database to explore the rate of adverse events for orthopaedic trauma procedures and comparing them with Medicare reimbursement data, we sought to evaluate the relationship between reimbursement and risk in order to determine if procedures with higher risk of complications received increased physician compensation.

Methods: 91 CPT codes representing all orthopaedic trauma surgeries, which included hip/pelvis (HP), upper extremity (UE), and lower extremity (LE) fractures (fx), were identified in the 2005-2011 ACS-NSQIP database. 50 CPT codes that had less than 100 patients were excluded. Perioperative complications including wound dehiscence, superficial surgical site infection, pneumonia, urinary tract infection, deep wound infection, myocardial infarction, deep venous thrombosis, pulmonary embolism, peripheral nerve injury, sepsis and septic shock, and death were recorded. Physician payment (Medicare Part B) amounts for each CPT code were found using the 2011 Medicare fee schedule. A linear regression was performed to determine the correlation between complication rates and payment amounts.

Results: 41 orthopaedic trauma CPT codes representing 18,854 patients (HP = 5029, UE = 4091, LE = 8582) were included in the analysis. Only a moderate correlation between payment amount and complication rates was found ($r = 0.55$, $P = 0.001$). Overall, a 1.8% increase in complication rate was associated with a payment increase of only \$100 dollars. As show in the figure, there was a minimal relationship between Medicare reimbursement and complication rate; for example, above-knee (AK) amputations demonstrate a complication rate of 25.1% and reimbursement of \$832.00 and open reduction and internal fixation (ORIF) of the distal femur demonstrates a similar payment (\$989) and high complication rate (24.2%). However, other injuries had much higher reimbursement but lower complication rates: pilon (\$1294, 7.2%) and proximal humerus fractures (\$1249, 5.7%).

Conclusion: Our data are the first to demonstrate that the current Medicare payment structure does not heavily weigh the risk of adverse events in providing compensation to physicians. However, in a future bundled payment plan that does not consider the risk of complications based on the injury, fractures with lower compensation but higher risks of complications will challenge the financial viability of caring for orthopaedic trauma patients.



- The FDA has not cleared this drug and/or medical device for the use described in this presentation (i.e., the drug or medical device is being discussed for an “off label” use). For full information, refer to page 600.