Are Orthopaedic Trauma Surgeons Adequately Compensated for Treating Acetabular Fractures? An Analysis of Operative Times and Work Relative Value Units

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Purpose: Work relative value units (wRVUs) can influence physician compensation and resource allocation. They are intended to be based upon case effort and complexity. However, discrepancies have been reported between the operative time required for certain surgical procedures and allocated wRVUs. The purpose of this study was to evaluate the wRVUs attributed per minute of operative time (wRVU/min) in fixation of acetabular fractures and to evaluate associated surgical factors that influence wRVU/min.

Methods: An institutional database of acetabular fractures treated with open approaches was retrospectively reviewed. Patients with concomitant procedures and no discrete incision to closed time for the acetabular portion were excluded. CPT code, fracture pattern, position, approach, incision to closed time, nonsurgical room time, concomitant procedures, and the operating surgeon were collected. Groups were categorized by their coded CPT: 27226 (isolated wall), 27227 (isolated column, transverse), 27228 (both column, T type, anterior column posterior hemitransverse, column, or transverse and wall). Work RVUs per surgical minute were compared to reported values of other orthopedic procedures.

Results: 251 acetabular fractures treated by 7 fellowship-trained orthopaedic trauma surgeons between 2010 and 2019 were included. The mean total wRVUs per surgical minute for each CPT code were (1) CPT 27226: 0.091 wRVU/min (range, 0.047-0.247), (2) CPT 27227: 0.120 wRVU/min (range, 0.075-0.282), and (3) CPT 27228: 0.120 wRVU/min (range, 0.047-0.244). These values were lower than reported wRVU/min for other orthopaedic procedures (Table 1). For patients with a single approach, anterior-based surgical approaches generated the least amount of wRVUs per surgical minute (0.0914 wRVU/min, P = 0.0001). Patients requiring 2 positions and approaches required the most amount of surgical time and generated the lowest wRVU/min. The average nonsurgical room time was 77.2 minutes. Prone positioning required the longest amount of nonsurgical room time across all fracture patterns (84.8 min). Surgeon experience ranged from 3 to 26 years in practice, with operative time decreasing as surgeon experience increased (P = 0.03). Surgeons with >20 years of experience averaged 0.122 wRVU/min across all fracture patterns.

Conclusion: The wRVUs allocated per minute of operative time for acetabular fractures is less than half of other reported procedures and lowest for isolated wall fractures. The increased time required for anterior-based or dual approaches further decreased wRVU/min. There was a significant amount of nonsurgical room time, which limits overall production. This information should be utilized to ensure that orthopaedic trauma surgeons are being adequately compensated and supported for managing these technically complex fractures.

Procedure	N	wRVU	Mean surgical time (min)	Mean wRVU/min
27226	83	15.57	172.54	0.09
27227	19	25.41	202.47	0.126
27228	111	29.33	231.97	0.126
Primary Hip Arthroplasty (reported)				0.26
Revision Hip Arthroplasty (reported)				0.249

See the meeting website for complete listing of authors' disclosure information. Schedule and presenters subject to change.