

Experience in Hand Surgery for Graduates of Three Surgical Specialties

Background: Plastic, orthopedic, and general surgery residents receive unique hand surgery training, yet often compete for similar hand surgery fellowships. The purpose of this study was to determine the baseline hand surgery experience in a national cohort of three specialties.

Methods: Procedural statistics for chief residents in 2011-2014 were downloaded from the American Council of Graduate Medical Education for plastic, orthopedic, and general surgery residents (1). Data were grouped by specialty and compared by the number of total hand surgery procedures, including fracture repair, soft tissue reconstruction, and digital amputations. For orthopedic surgery, total number of procedures was calculated by the sum of hand and forearm cases. Statistics for interspecialty comparisons utilized a one way analysis of variance (ANOVA) with a cutoff of $p < 0.05$ for significance.

Results: Over four years, data were available for 640 plastic surgery, 2,687 orthopedic, and 4,355 general surgery residents. From 2011 to 2014, the average number of hand cases reported by plastic surgery residents increased 13.6% from 351.9 to 399.9 cases, and those reported by orthopedic residents decreased 21.7% from 270 to 211.5 cases. A significant difference was observed in the total number of hand cases with plastic surgeons performing the most at 372.3 followed by orthopedic and general surgery at 260.3 and 0.6, respectively ($p < 0.05$). Plastic surgeons performed more soft tissue reconstructions (60.7 vs 45.6) and digital amputations (14.9 vs 6.5) than their orthopedic colleagues ($p < 0.05$). Orthopedic residents reported more fracture repairs (78.2 vs 44.1, $p < 0.05$).

Conclusions: Experience in hand surgery procedures differs widely among surgical training programs in the United States. These differences may highlight a need for optimization in training for certain areas during hand surgery fellowship. Case volume is only a proxy for competency and greater research is needed to elucidate baseline proficiencies of incoming hand surgery fellows.

Reference Citations:

Case Log Statistical Reports. Available at: <https://www.acgme.org/acgmeweb/tabid/274/DataCollectionSystems/ResidentCaseLogSystem/CaseLogsStatisticalReports.aspx>. Accessed on March 1, 2014.