Upper Extremity Injuries Seen at a Level 1 Trauma Center: Does Insurance Status Matter?

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Introduction: Hand and upper extremity injuries are one of the leading causes of injury in the United States, making up 10% of all emergency department visits and 9.2 billion dollars in yearly health care expenditures. The purpose of this study was to determine if there are any demographic differences between patient groups presenting initially to our emergency department for upper extremity related injuries versus those transferred from other hospitals for the same diagnoses.

Methods: A retrospective review of our hand trauma database was performed between 2011 and 2014. All patients within this time period with ICD 9 codes suggestive of upper extremity injuries were included in this study. Patients were stratified into two groups: those presenting directly to our emergency department (group 1) and those that first presented to another hospital and were accepted as transfers to our institution (group 2). Demographic data were collected for each group including gender, age, race, insurance status, mechanism, need for emergent surgery, day and time of presentation. Statistical analysis using chi squared and paired t-test was performed between groups.

Results: Over the 3 year time period 444 patients with upper extremity injuries presented to our institution and 122 patients were transferred from an outside hospital. The average age of group 1 was 41, (73% M, 27% F); group 2 average age was 38, (77% M, 23% F). 43% of the patients in group 2 were uninsured compared to 16% for group 1. (***p <0.05***)

Conclusion: The data suggests that our institution is receiving a large proportion of uninsured patients transferred for emergent upper extremity care, compared to our current patient demographic (group 2 is 2.7 times more likely to be uninsured compared to group 1). Because this is a retrospective study, the precise reason for these discrepancies will remain unknown. Nonetheless, these data illuminate the need for adjustments to the current triage protocol in order to better utilize and distribute financial resources to care for patients with upper extremity injuries.

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