

HAND AND WRIST AMPUTATION: A DEMOGRAPHIC ANALYSIS USING THE NATIONAL INPATIENT SAMPLE

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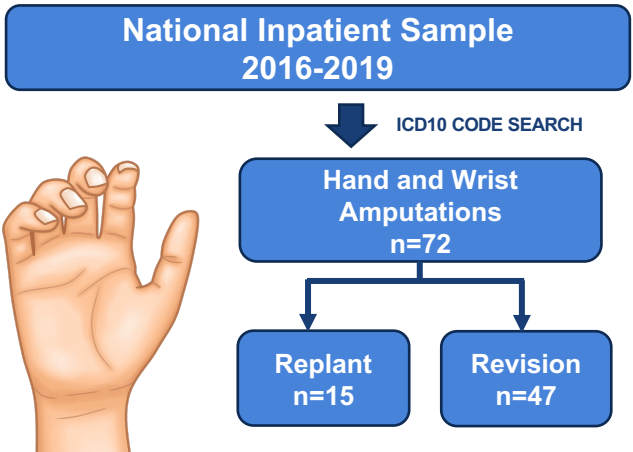
Background

- Disparities in traumatic amputation care are well documented, with racial, social and economic factors having been shown to impact surgical care.
- Traumatic hand and wrist amputations are rare but debilitating injuries.
- Surgical replantation of the hand provides a unique alternative to revision surgery but requires appropriate access to high level medical resources.

Objective & Hypothesis

- The purpose of this study is to assess sociodemographic data regarding treatment after traumatic hand amputation.
- We hypothesize that socioeconomic disparities may exist in hand amputation and replantation care.

Methods



Results

- There is a significant association between lower socioeconomic status and traumatic hand amputation injuries ($p=0.002$).
- 68% occurred in patients below the US median income level.

	Total
Total patients (n)	72
Age in years (IQR)	34.5 (25-48)
Male sex (%)	65 (90)
Race (%)	
White	42 (58)
Black	11 (15)
Other	19 (26)
Region (%)	
Northeast	10 (14)
Midwest	16 (22)
South	32 (44)
West	14 (19)
Income Half	
Lower income	49 (68)
Higher income	22 (30)

- 21% of hand amputations underwent replantation procedures.
- The rate of replantation was similar among patients of difference sex, race and income brackets.
- Replantation was performed mostly at large bed size (87%), private not-for-profit (73%), urban teaching hospitals (94%).

Results (cont.)

- If a patient underwent replantation, they remained hospitalized for longer, by 4 extra days on average ($p=0.0188$).
- They also had significantly higher costs associated with their hospitalization ($p=0.001$), with a median cost of \$192,993 vs. \$86,556 for patients undergoing revision amputation.

Replant	VS	Revision
\$192,993		\$86,556

- The most common insurance held by patients who received replantation was private, followed by Medicaid then Medicare.
- There was no association between undergoing revision amputation and sociodemographic factors.

Conclusion

- While limited by sample size, these findings provide favorable evidence that healthcare disparities that exist in alternative sites of traumatic amputation may not be present with amputation of the hand.
- Replantation was performed in one of five hand amputations and resulted in significantly longer and more expensive hospital stays, with no association between sociodemographic characteristics and treatment received.

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