Patients Transferred to a Regional Medical Center for Emergent Hand and Upper Extremity Problems

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Introduction

Hand and upper extremity injuries are one of the leading causes of injury in the United states, making up to 10% of all emergency room visits. The complex nature of these injuries can often exceed the services available in rural and less populated areas, requiring the service of a fellowship trained upper extremity specialist. For this reason, these patients are transferred to one of the three level 1 trauma facilities in South Carolina. This study provides a retrospective analysis comparing patients with emergent hand and upper extremity problems transferred to The Medical University of South Carolina (MUSC) to patients admitted directly from the emergency department during the same period of time.

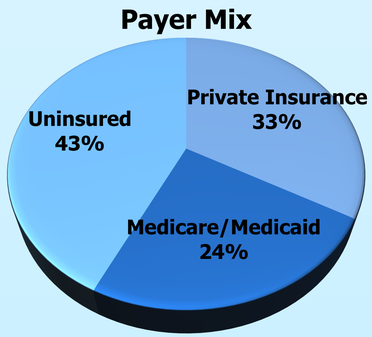
Methods

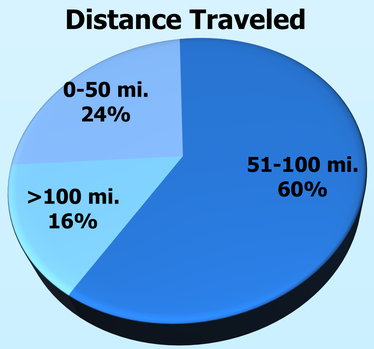
The raw data was obtained for all patients with upper extremity injuries transferred to MUSC from an emergency department in the surrounding areas were recorded during a three year period. The data was provided by a SPARC request filed through The South Carolina Institute for Translational Research. The reason for transfer and admittance status was recorded for each patient. Additional data obtained for each transfer included age, sex, race, insurance status, referring physician, transferring hospital, admitting time and date, and surgical procedures completed upon admission. Patients listed as self-pay or no insurance were categorized as uninsured. Patients listed with Blue Cross, Medicare, Medicaid, Select Health/First Choice, Tricare, etc, were categorized as insured. The percentage of uninsured patients transferred during the three year period was determined. The normal hours of operation were defined to be between 6:00AM and 6:00PM. All transfers between the hours of 6:01PM and 5:59AM were categorized as outside of normal business hours.. The distance traveled for all patients was determined as well as the distance between the patients starting location and the other two Level 1 facilities in the state of South Carolina.

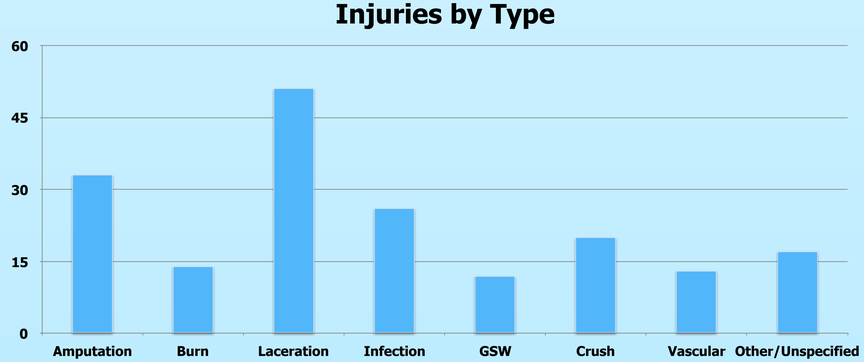
Results

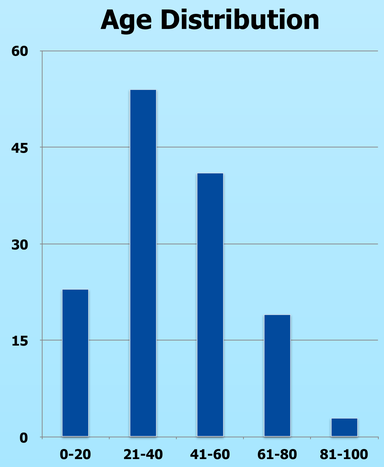
- 187 out of 191 (98%) of the patients in this study were transferred for higher level of care.
- 61 of the 191 (32%) upper extremity trauma patients transferred to MUSC between 2011 and 2014 were closer to another Level 1 trauma center at their hospital of origin.
- 43% of the patients transferred to MUSC were uninsured while an additional 25% were underinsured (Medicare/Medicaid).
- 35% of the transfer patients requiring surgery were listed as uninsured or self-pay.
- 61% of all transfer patients accepted to MUSC were transferred outside of normal hours of operation.
- 58.1% of the patients transferred outside of normal hours of operation required subsequent surgical correction by a hand or upper extremity specialist.

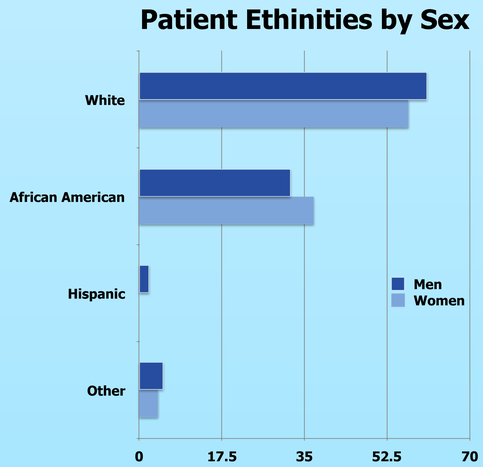
Figures











Conclusions

Our data shows that the Medical University of South Carolina (MUSC) is receiving a a large proportion of uninsured and underinsured transfer patients for emergent upper extremity care and that the majority of these patients traveled greater than 50 miles to seek care at MUSC. It is possible that these patients were transferred to MUSC as a consequence of their insurance status. However, it is equally possible that that the transferring facility simply lacked an upper extremity specialist to provide sufficient care. Because this is a retrospective study the precise reason for these discrepancies will remain unknown. Further comparative studies will be done to elucidate any discrepancies between this patient population and the patient population presenting to MUSC during the same time period.

Future Studies

The same data included for transfer patients will be obtained for all patients seen first in the MUSC emergency department during the same time period. The payor mix and general demographic information will be compared against the data for the transfer patients. Any major demographical differences between the two groups will be recorded.

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