

Comment on Is Trauma Center Designation Associated with Disparities in Discharge to Rehabilitation Centers among the Elderly Patients with Traumatic Brain Injury?

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Abstract

Elderly patients represent a significant portion of the population sustaining traumatic injuries. By the year 2050, elderly trauma admissions are expected to reach an unprecedented level of 39%. Intuitively, the outcome in this group of patients is expected to be more significant than a younger population precisely because

1. Co-morbidities are more likely to be increased
2. An impaired physiologic response to trauma is more likely to be present
3. Likelihood of being on medications which in of itself can confound monitoring and resuscitation
4. The likelihood of ICU admission for comparable injuries sustained by younger patients who would not demand a Critical Care bed

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Description

One particular injury, TBI seems to be the bete noir of the elderly patients. Falls are the leading cause of TBI in the elderly. It does not stretch the imagination as to render reasons for this occurrence. These patients are more frail in general, their brain volume is decreased, their cerebral vessels have decreased elasticity and are more prone to injury, and finally they are more likely to be on anti-coagulants such as Direct-Acting Oral Anti-Coagulants that do not require monitoring such as eliquis (apixaban) or pradaxa (dagigatran).

Considering all of the above it is not surprising that mortality rates in the elderly sustaining a sever TBI can range from 30-8-% [1,2] is the fact that mortality rates.

When considering long term planning and eventual return to a normal or semi-normal life for elderly patients who have sustained moderate to severe TBIs, Post-discharge Rehabilitation becomes crucial to recovery [3]. The prospective question pondered by the authors, who led to this study, simply put is: Are there disparities among patients that might influence whether or not patients are discharged to a Rehabilitation Center after sustaining a TBI. The authors examine three variables in a Retrospective manner:

Trauma Center designation, Race/Ethnicity, and Insurance Status using data from the National Trauma Data Bank (NTDB) spanning the years 2014-2015 [4].

Disappointing data from this study documented that only 19.3% of patients were discharged to rehabilitation Centers. Not surprisingly, Socio-economic status, being White, and admission to a Level I or II Trauma were all associated with being discharged to a Rehabilitation Center for the elderly with a TBI. Specifically, patients from Level I and Level II Trauma Centers discharged their Elderly TBI patients to Rehabilitation Centers at a rate of 19% and 21.6% respectively compared to only 5.1% from a Level III Trauma Center. When segregated for ethnicity, 20.6% of Non – Latino White patients were discharged to Rehabilitation Centers compared to 14.3% for Blacks, 18.8% for Asians, and 14.6% for Latinos. These conclusions were also observed independently by others. Finally patients with Commercial Insurance as compared to those with Medicare or non private insurance were more likely to be accepted into a Rehabilitation Center.

While there are several limitations to any retrospective study as this one is, several other factors come into play: Small sample size of the Level I and II Trauma Centers patients, most patients

evaluated were Non-Latino White, whether or not patients received out patient Rehabilitation which may have obviated the need for in Patient rehabilitation, lack of information regarding discharge GCS, skewed data in the NTDB which includes a disproportionate number of Younger patients. However, based on the available data, no matter how unpalatable that may be, the reality of the situation is: If you are not White, (except for Asians) do not possess private insurance or admitted to a Level III Trauma your chances of being discharged to a Rehabilitation Center where optimal chances for functional recovery from a TBI is optimal are, presently, limited at best.

References

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