Assessment of severity, causes, and outcomes of hospitalized trauma patients at a major trauma center

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Abstract:

BACKGROUND AND AIM: Trauma is a major cause of hospitalization in both civilians and military personnel (MP). It constitutes one of the most common causes of work layoffs, lowered efficiency, and handicaps in the civilian as well as the military population. Assessment of injury parameters and severity is useful. It allows for grading, grouping, classification, and assessment of outcomes of trauma patients for comparison with world standards. This study aimed to assess the Injury Severity Scores (ISS), recognize the source, and types of injuries leading to hospitalization of civilian and military trauma patients at our trauma center. MATERIALS: During 2004-2005, 1,393 trauma patients were admitted to our trauma center for major injuries. They were divided into three groups (1: ISS 12) and assessed via obtaining demographic data, case history, and information relevant to the source of injury and the ISS. The treatment course and outcomes of the patients were followed in a prospective cross-sectional study. RESULTS: Of the 1,393 trauma patients, 721 (51.8%) were civilians and 672 (48.2%) were MPs. With regard to injury severity, 75.7% had an ISS 12. The average ISS was 5.2 with an SD of 5 and a median of 4. The average age was 30.5 years ± 15.9 years with a median of 26.5 years. The average hospital stay was 9.2 days ± 14.4 days with a median of 5 days. Regarding the mechanism of trauma, overall, 55.8% were traffic crashes, 26.7% falls, 5.9 bullets and shrapnel, and 11.6% altercations and other causes. In the 672 hospitalized MPs, the majority 669 were men (99.6%) and 3 were women (0.4%). Nonpenetrating trauma was prevalent in 71.2% of the MPs. Traffic crashes comprised the most common cause of their admission (36.1%). The average age was 26.6 years ± 10 years. Fractures were the most common type of injury and this figure was (74%) in MPs. Inability to continue active duty permanently was 9% and mortality was 0.15% (one patient) in this fraction of MP. CONCLUSION: Causes of admission and hospitalization of trauma patients and MPs vary in different societies and nations. The percentage of MPs admitted to our trauma center was almost equal to that of the civilian population. Inquiry into the type and causes of the trauma in each setting constitutes the first step in implementing measures to prevent injuries and handicaps, reduce hospitalization (stay and charges), and cut work layoffs in this patient group. Integrated civilianmilitary medical systems and, in particular, integrated databases can be helpful in this regard. © 2009 Lippincott Williams & Wilkins, Inc.

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