

Motorcycle injuries at a tertiary referral hospital in Kenya: injury patterns and outcome

Saidi, H; Mutisto, B

<http://link.springer.com/article/10.1007/s00068-013-0280-8>

<http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/33358>

Date: 2013

Abstract:

Background The rise in the use of motorcycles in Kenya in the last 10 years has been associated with increased injury rates. Between 2004 and 2009, motorcycle injuries increased at a rate of 29 % and, in some hospitals, motorcycle users have become the predominant road user category injured. Although most road traffic injuries occur in Nairobi, there has been no previous account of motorcycle injury and associated outcomes at its main hospital. **Objective** To describe the injury patterns and outcomes following motorcycle trauma at the Kenyatta National Hospital. **Methods** All motorcycle trauma admissions during one calendar year were analyzed. The data captured included demographics, injury patterns and outcomes, lengths of hospital stay, hospitalization cost, and early hospital mortality. Factors associated with outcomes were analyzed by univariate and multivariate means. The probability of survival was estimated using the Trauma and Injury Severity Score (TRISS) methodology for each patient. **Results** Two hundred and five patients were reviewed. Motorcycle trauma admissions formed 22.3 % of all road traffic injury admissions. Male riders predominated. The average age and modal age group was 30.78 and 21–30 years, respectively. Half of riders and 20 % of passengers used protective helmets. Injuries were mostly to the extremities (60.7 %) and head/neck (32.07 %), and the average Injury Severity Score (ISS) was 7.57 + 4.0 (median 9.0). At 2 weeks, 9.0 % of patients had died. The estimated probability of survival ranged from 0.86 to 0.97. Surgical interventions were needed for 51.7 % of patients. The mean length of stay in the hospital was 24.3 days, while the cost of treatment was 31,783 Kenya Shillings (Kshs). Injury severity ($P < 0.001$), admission to the intensive care unit (ICU) ($P < 0.001$), non-surgical treatment ($P = 0.003$), blood transfusion ($P = 0.029$), head injury ($P < 0.001$), and low Glasgow Coma Scale (GCS) score at admission were significantly associated with mortality. **Conclusion** Injuries to the lower limbs and the head predominate in motorcycle trauma. The high mortality rate, need for surgery in the majority of patients, and prolonged admission days call for motorcycle control and expedited care. Significant head injury mortality calls for efforts to embrace helmet laws for riders and passengers.