

Injury Patterns Associated with Mortality Following Motorcycle Crashes

Authors: Ankarath S1, Giannoudis PV, Barlow I, Bellamy MC, Matthews SJ, Smith RM.

Published in: *Injury*. 2002 Jul;33(6):473-7.

Abstract

All patients involved in motorcycle crashes admitted to various hospitals in the Yorkshire region of UK between January 1993 and December 1999 were retrospectively reviewed to identify the factors that are likely to predict a reduced survival. Of the 1239 patients requiring hospital admission, 74 died. The probability of reduced survival was estimated by a logistic regression model using independent variables such as head injury, thoracic trauma, abdominal injury, spinal injury and pelvic fracture and a compound variable of pelvic fracture combined with a long bone fracture. The odds ratio for head injury was 0.349, chest injury 0.39, abdominal injury 0.42, and the compound variable (pelvis plus a long bone fracture) 0.576. The mean injury severity score (ISS) in the fatal group was 35.96 compared to 12.2 in the group that survived ($P < 0.01$). There was a significant difference in the Glasgow coma scale (GCS) between patients wearing a helmet and those that did not wear any protective headgear ($P = 0.0007$). Head injury followed by chest and abdominal trauma were found to predict a reduced survival rate. Use of helmets should continue to be compulsory. Chest and abdominal injuries should be diagnosed and treated early to reduce mortality.