

## Injury Profiles of Ambulance Attended Road Trauma in Victoria

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### Abstract Only

#### Introduction

Ambulance attendance data is an under-utilised resource for investigating road trauma. Emerging electronic in-field data capture methods now provide opportunities to profile prehospital presentations among road trauma victims.

#### Methods

This retrospective registry study used electronic patient care records from Ambulance Victoria's metropolitan, rural and air wing data warehouse from 2007 to 2009. Patients included in the analysis were recorded as having high or low speed motor vehicle collision (dichotomised at paramedic estimated speed: 60kph), high or low speed motorcycle collision (dichotomised at paramedic estimated speed: 30kph), pedestrian collision, or bicycle collision as the primary injury cause (n = 47,388). Outcomes of interest were injury profile and Injury Severity Score > 15, investigated using logistic regression according to trauma cause and relevant covariates. The study population was mostly male (55.6%), attended to in metropolitan Melbourne (82.6%), had been involved in a high speed motor vehicle collision (62.8%).

#### Results

The most common all-cause injury type was blunt head (2,002 [37.3%]), followed by blunt abdominal (1,403 [26.1%]). Compared to low-speed motor vehicle collision victims, pedestrians were most likely to have a significant injury profile (AOR = 1.3 [1.2, 1.5]), blunt head injuries (AOR = 2.3 [1.9, 2.8]), and ISS > 15 (AOR = 1.5 [1.2, 1.8]). AV paramedics were more likely to be called to patients with a significant prehospital injury profile at night (11pm to 6am) than morning (6am to 9am) (AOR = 1.5 [1.3, 1.7]), and on weekends than weekdays (AOR = 1.1 [1.0, 1.2]).

#### Conclusions

This study describes the different prehospital injury profiles of motor vehicle occupants, motorcyclists, pedestrians, and cyclists involved in road collisions; the findings highlight the increased odds of severe injury observed in pedestrians. These findings may be a useful reference for future road safety initiatives or prehospital trauma research.