



Service Priorities and Programmes
Electronic Presentations

Convention ID: 1059

Submitting author: Dr Janice, Hiu Hung Yeung

Post title: Trauma Nurse Coordinator, Prince of Wales Hospital,

Trends and Mortality of Bicycle-Related Injuries in the Past 12 Years

Yeung JHH (1, 2), Cheung NK (1, 2), Graham CA (1, 2), Cheng CH (1, 2), Rainer TH (1, 2)

(1) Trauma & Emergency Centre, Prince of Wales Hospital, Hong Kong (2) Accident and Emergency Medicine Academic Unit, Chinese University of Hong Kong

Keywords:

Trauma

Bicycle related-injury

trends

Patient outcome

Mortality rate

Mortality rate

Introduction

Bicycle riding is becoming more popular in Hong Kong and this will result in more bicycle-related injuries. Prevention of bicycle-related injuries and alerting the public about safety factors are important public health issues.

Objectives

The objectives of this study are firstly to describe bicycle related injuries presenting to a regional trauma centre in Hong Kong, and secondly to monitor changing trends in bicycle-related trauma and mortality.

Methodology

This is a retrospective trauma registry study in a regional trauma centre in the New Territories which is a popular cycling area. All bicycle injury-related patients who were triaged as Category I or II in the Accident & Emergency Department or admitted through Primary Trauma Diversion between 2001 and 2012 were included in this study. Patients who died on or before arrival were excluded.

Result

512 patients (age 36.8 ± 18.7 years; M:F 361:151) met the inclusion criteria and 173 (33.9%) patients had major trauma (ISS>15). The mean \pm SD ISS was 12.5 ± 11.4 . Average hospital length of stay (LOS) \pm SD was 7.1 ± 10.7 days. 100 (19.5%) patients required a trauma call. 73 (14.2%) patients required Intensive Care Unit (ICU) care and the average ICU LOS \pm SD was 5.3 ± 7.7 days. The overall mortality rate was 4.3% but patients ≥ 65 years old had a significantly higher mortality rate (36.4%, $P < 0.001$). The number of cyclists who required management in the trauma resuscitation room has increased over three-fold, from 22 patients in 2001 to 72 patients in 2012. There was 4.2 times more bicycle related major trauma (ISS>15) in 2012 compared to 2001. Deaths from bicycle-related injuries have also increased

from one to two patients per year to four to five patients per year. Conclusions
Bicycle-related injuries and deaths are increasing in Hong Kong. There is a need for
community programs that raise awareness about cycling safety. More effective
bicycle-related injury prevention and education programmes should be considered.
The three 'E' approaches (education, enforcement and environment) should be
implemented to reduce bicycle-related injuries.