Short reports

A review of injuries sustained by bus passengers

Travelling by bus is one of the safest ways to travel, only 0.57 fatalities occurring per 10⁹ km in public service vehicles compared with 5.5 in cars, 54 in bicycles and 130 in motorcycles.¹ Similarly there is less risk of serious or slight injury. Although serious accidents involving buses or coaches leading to multiple casualties will often make headline news or the pages of medical journals,² little is written on those injuries which occur sporadically throughout the year.

Injuries of bus passengers attending the accident and emergency (A&E) department of the Leicester Royal Infirmary over a 1-year period from 1 February 1991 to 31 January 1992 were noted and the circumstances and cause of injury examined.

Forty-six patients attended over the year as a result of injuries sustained on buses. This accounted for only 1% of the patients attending the department with injuries from road traffic accidents (RTAs). Information on the circumstances of the accident was available in 44 cases.

Fifteen patients were injured in 13 separate incidents where there was no impact (non-crash accident). Over half of these injuries were in standing passengers, a third of injuries occurring when the bus halted suddenly.

Another vehicle was involved or the bus hit a stationary object in 11 incidents injuring 29 patients (crash accidents). Multiple attendances occurred in only three out of 11 bus crashes. Most injuries which occurred were to the head and face (see Table 1), and they were commonly due to impact with the seat in front or metal fittings (usually hand rails).

Of unrestrained children in cars up to 12% receive injuries from non-crash accidents,³ and the problem

has been addressed by the introduction of legislation enforcing use of child safety restraints. It is likely that many injuries from non-crash accidents go unrecorded in government RTA statistics which are derived from police records and compiled for traffic planning and highway design, a problem which has been highlighted elsewhere in the case of pedestrian accidents.⁴

Undoubtedly, injuries on buses could be reduced by the use of restraints and the prohibition of standing passengers. Some attention could be paid to the design of hand rails on seats which appear to be the cause of many injuries, however this is unlikely to have much effect until buses of older design are replaced. Investment in public transport would benefit both the environment and add to the safety of passengers.

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Perimortem caesarean sections (PMCS)

In June 1990 in Hong Kong a 35-year-old woman, 36 weeks pregnant, developed pre-hospital cardiopulmonary arrest possibly resulting from acute coronary artery spasm of unknown aetiology. Pre-hospital basic life support (BLS) was delayed until 15 min after arrest when the ambulance crew arrived and advanced life support (ALS) was only available at the accident and emergency (A&E) department about 30 min post-arrest.

Table 1. Injuries received by bus passengers

Site of injury	Contusion	Sprain	Wound
Head and face	14	—	7
Neck	—	7	—
Chest	5	—	—
Upper limb	—	5	—
Lower limb	5	—	—
Back	2	—	—