

Unrestrained occupants; an ambulance service case study

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Structure

- Circumstances
- Injuries
- Scale
- Answers
- Conclusions

Circumstances

- Requirement to treat patients in moving vehicle.
- Frequently means paramedics need to remove seat belts (restraints) or even stand.
- Sudden movement such as braking or cornering can lead to injury.
- Injuries can result even when the vehicle has not been involved in an accident

Issues

- Restraint system adequate for forward or rearward facing travel in normal circumstances.
- When the seat is rotated, the situation is more problematic.
- Normally only lap belt (at best) can be used.



Consequences?

- Case study –
- Paramedic treating cardiac patient en route to hospital removed belt to administer medicine & retrieve patient's notes.
- Driver braked sharply, paramedic in rear was thrown forwards & sustained a head injury.

Injuries -

- Trauma to the head resulting in a laceration to the left parietal region which required stitches
- Concussion
- Whiplash
- Laceration and contusion to the right tibial region.

Long term

- Fatigue
- Memory problems
- No longer fit to work in the service.

Likely source of injury



Scale of the problem

- Figures have been hard to come by, but in 1 ambulance service (2004)
- April 9 incidents
- May 2 incidents
- June 2 incidents
- July 2 incidents
- August 1 incident
- September 3 incidents
- October 5 incidents

Other evidence

- All from US (no UK literature!)
- Less than 50% of EMS personnel use restraints in the rear of the vehicle.
- Most commonly provided restraint systems do not allow adequate access to the patient.
- Almost a quarter of EMS personnel fatally injured on duty were unrestrained in a moving vehicle.

Answers

- Risk assessments -
- Slips, trips and falls when assisting patients.
- Manual handling injuries when lifting stretchers.
- Exposure to high noise levels (such as the siren).
- Risk of violence.
- Psychological stress as a result of the potentially distressing nature of some of the work.
- Risk of involvement in a road accident, exacerbated by the need on occasions to drive at speed.

ORR in the ambulance service

- Training focuses on risk of collision.
- Some trusts have considered the risk of falls, but they say the risk is managed by
 - providing padded surfaces & grab handles, or
 - by instructing paramedics to stop the vehicle if the need to administer treatment becomes urgent.

Padding & grab handles?







What is the role of training?

- Recognise that occupational road risk is not just about avoiding collisions.
- Help personnel to make sensible choices (and avoid compromising their own safety wherever possible!)
- Remember that there is a responsibility to other occupants of the vehicle.

conclusions

- There is very little work on this aspect of the job (& there are implications for FRS, where we are also aware of incidents)
- Figures from one ambulance service & from the US suggest that this could be a more widespread problem than previously recognised.
- Training WILL help, but it should not be limited to those on the “front line”