of dog bites. In an unpublished follow up I questioned, within 24 hours of injury, 39 of the 41 victims of dog bites who presented to the emergency department of a suburban Melbourne hospital over six months. Two victims refused to participate in the study, claiming that they were "dog lovers." Although the range of severity was wider, in that only eight (21%) patients required admission, my results parallel Shewell and Nancarrow's as only six (15%) patients were bitten by an unknown stray; 26 (67%) were bitten by a family pet and seven (18%) were bitten while working.

In only six (15%) cases did the patient claim that there had been no obvious cause for the attack. Eleven patients admitted having provoked the dog into action. Eight dogs had been fighting another dog, eight were defending territory or a meal, five were being deliberately teased, two were being bathed, and five were asleep and startled by the victim. Two guards presented after being bitten by guard dogs, compared with one prowler.

My findings with respect to the breed of dog (as given by the patient) were different from those of Shewell and Nancarrow. A much higher proportion (14 (36%)) were labelled as German shepherd, with six (15%) being identified as Rottweiler or Doberman, seven (18%) as terriers, three (8%) as Australian cattle dogs (kelpie or blue heeler), and the remainder as other breeds and mongrels. Twenty two (56%) dogs were male and eight (21%) female; the gender of the remainder was unknown. Only three (8%) dogs had attended obedience classes before the incident.

I agree with Shewell and Nancarrow that the public need to be more aware of the potential danger in our relationship with dogs.

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- 1 Shewell PC, Nancarrow JD. Dogs that bite. *BMJ* 1991;303:1512-3. (14 December.)
- 2 Thomas PR, Buntine JA. Man's best friend? A review of the Austin Hospital's experience with dog bites. *Med J Aust* 1987;147:536-40.

SIR,—P C Shewell and J D Nancarrow's findings that 'most dogs that bite are either owned by or known to the victim' concur with my own.

I carried out a prospective study of all patients presenting with dog bites to the accident and emergency department at Lincoln County Hospital during three months in the spring and early summer of 1990. I identified 109 such patients, representing 2% of all new patients presenting. One hundred and eight of the dogs were known to the patient, and 37 were family pets. Most attacks occurred in the home or on private ground. Collars were definitely or probably worn by 79 of the dogs. Weather conditions and the size and type of the dog played no part in the attacks. Ninety six of the patients were in favour of a dog register, though only six thought that it would have prevented the attack on them and none could specify how.

The Royal Society for the Prevention of Cruelty to Animals has campaigned for a dog register, but this has been repeatedly rejected by the government. The idea of a dog register was popular among the patients questioned, but as the ownership of the dogs and who was in control of them were easily established a register would not have affected the incidence of these injuries. It remains to be seen if the Dangerous Dogs Bill² and muzzling of proscribed breeds have any effect, but this is unlikely as most of the attacks are not by dogs of the proscribed breeds.

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- 1 Shewell PC, Nancarrow JD. Dogs that bite. *BMJ* 1991;303:1512-3. (14 December.)
- 2 *Dangerous Dogs Bill*. London: HMSO, 1991.

Febrile convulsions

SIR,—In his editorial on febrile convulsions Roger J Robinson considers a 7% risk of epilepsy up to the age of 25 years to be small for this condition.¹ Considering that the prevalence of epilepsy in the adult population is 0.5%,² a 14-fold increase in the risk of epilepsy in adulthood after febrile convulsions is hardly small.

The suggestion that an inherited predisposition to pre-existing abnormality is responsible for subsequent partial seizures is not entirely in accord with recent evidence from correlative studies of magnetic resonance imaging and neuropathology. The Montreal Neurological Institute has identified hippocampal sclerosis on magnetic resonance imaging in 10 patients with a clear history of early convulsions lasting 30 minutes or more and no other risk factors for focal epilepsy.³ When tissue was available neuropathological findings confirmed the findings on magnetic resonance imaging. The Mayo Clinic has reported that when volume studies of the hippocampus, performed with magnetic resonance imaging, indicate sclerosis this is invariably confirmed by subsequent neuropathological findings.⁴ These preliminary correlative studies indicate the probable importance of prolonged febrile convulsions in the aetiology of complex partial seizures. Further larger studies should help to resolve this issue.

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- 1 Robinson RJ. Febrile convulsions. *BMJ* 1991;303:1345-6. (30 November.)
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Restraint of children in cars

SIR,—A Bodenham and R J Newman draw attention to the safety of children restrained in cars.¹ Preventable injuries are still occurring to both adults and children for the reasons stated by the authors, in particular the malpositioning of the lap component of the three point belt, with the inevitable toll of visceral injuries. Of great cause for concern, however, is the increasing use, usually by children, of lap belts, which are still legally acceptable in the United Kingdom and are provided in the rear seats of cars, vans, and taxis, usually for the third passenger.

The distinctive pattern of injuries produced by lap belts has long been recognised and was probably first described in 1962,² when lap belts were commonly provided for occupants of front seats. In the United States, after the three point belt became a common form of restraint for occupants of front seats the rear seats were fitted—if at all—with only lap straps. The injuries that these restraints are capable of inflicting in head on crashes, in particular visceral and serious spinal injuries, have been well documented, particularly in American reports.^{3,4} Lap belts can cause severe injury even when correctly positioned; their only virtue is that they prevent ejection from the vehicle, but they may cause injuries that would not have occurred had no belt been worn.^{5,6}

Scandinavian motor manufacturers have given much thought to the safe transport of young people in cars and at least one has recently produced a family saloon, available in the United Kingdom, that has three rear seat restraints that are all of the three point type; the middle one is also easily converted to an integral child safety seat with or

without a booster cushion. Other car manufacturers should follow this lead.

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- 1 Bodenham A, Newman RJ. Restraint of children in cars. *BMJ* 1991;303:1283-4. (23 November.)
- 2 Garret JW, Braunstein PW. The seat-belt syndrome. *J Trauma* 1962;2:220-38.
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SIR,—Though I wholly endorse many of the points made by A Bodenham and R J Newman in their editorial on restraining children in cars,¹ I fear that uninformed readers may be left with the misleading impression that child restraints are far from perfect. It is important that the very positive benefits of child restraints are emphasised. For every problem associated with a wrongly fitted or misused child restraint an overwhelming number of injuries are prevented and lives saved.

I share the authors' contention that the car manufacturers have an important role in ensuring that family cars are adequately equipped to allow all members of the family, not just the adults, to be carried in safety. Engineering solutions are available, as shown by the integral child restraint in the Volvo 940 saloon.

To minimise problems with fitting and using restraints until the manufacturers of cars and child seats improve their products, the Child Accident Prevention Trust is endeavouring to ensure that advice is readily available. We expect to publish a comprehensive guide in the spring for anyone in a position to give advice to parents on safety in cars.

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- 1 Bodenham A, Newman RJ. Restraint of children in cars. *BMJ* 1991;303:1283-4. (23 November.)

Apnoea monitors and accidental strangulation

SIR,—We have been made aware of an incident in one of our Care of Next Infant centres in which a 7 month old baby was found by his mother in a distressed state with the lead from a Graseby MR10 monitor wound round his neck. The child was awake and pulling the lead tighter round his neck. He was cyanosed when found but recovered rapidly after the sensor was removed.

Parents need to be told of the risk of accidental strangulation from apnoea monitor leads, wires, straps, etc; this risk increases as the child becomes older and more mobile. This is particularly important as parents are tending to use apnoea monitors for longer, and it is now quite common for monitoring to continue beyond 6 months of age.

We have been told of a few other occasions when the tubing has been found loose round a child's neck. It is important that the risks should be made known before a fatality occurs.

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