wheelbarrow. I am not inclined to provide myself with a hundredweight of books, although these are available at the local hospital. I am even less inclined to believe that a single textbook weighing only half a stone could ever cover all my needs. It has been tried several times by intelligent, diligent people and I reviewed two of them with words to the effect that this was a gallant effort to achieve the impossible.

Dr David Brooks (24 February, p 553) makes the important point that problems look different in general practice. Perhaps we need an agreed basic hundredweight of textbooks readily available to all doctors, with one loan copy and one reference copy in each local hospital or health centre. There might also be a separate series of "Variations in Your Branch." The largest "variation volume" would be for GPs but even this could be quite slim. Acute appendicitis, for instance, looks much the same at home as it looks in the casualty department, although the diagnosis may have become more or less obvious during the couple of hours between the one and the other.

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Priorities in road accidents

SIR,—In your leading article (3 February, p 287) you discussed priorities in road accident prevention. I should like to suggest four priority measures which are likely to reduce accidents in some high risk groups.

In 1977 5272 children were killed or seriously injured, with the highest proportion in the 5-9 age group.[1] Two-thirds of child casualties occurred in residential districts on C or unclassified roads. In 30% of these incidents children ran into the road from behind stationary vehicles. Prohibition of parking in residential districts from 8 am to 7 pm (when 95% of these accidents occur) should reduce casualty rates in children.

Only 37% of schools teach road safety.[2] The decision lies with the local education authorities and individual schools. Child casualty figures are so appalling that the Minister of Education should direct all education authorities to include road safety in the curriculum of teachers' colleges and schools. Children should be taught in the classroom as well as at the roadside.

In 1977 19 338 riders of two-wheeled motor vehicles were killed or seriously injured. Motorcyclists can be a menace on the roads: in 78% of collisions car occupants, pedal cyclists, or pedestrians were injured.[3] The young and inexperienced are involved in a high proportion of accidents. At present fewer than 10% of learner riders attend training courses. The introduction of a statutory training period, before being allowed on the road, is long overdue.

In about 30% of vehicle collisions the side of the car is hit, and its occupants may be seriously injured if the passenger compartment is deformed. Seat belts are effective in frontal but not in side crashes. Doors should therefore be designed to absorb the impact; this can be achieved by stronger hinges and locks and particularly by reinforcing them. In the United States a statutory safety standard directs that car doors must be strong enough to withstand a specified impact. The introduction of such a regulation in this country would not only reduce injuries but also help the export drive.

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[1] Department of Transport, *Road Accidents; Great Britain 1977*. London, HMSO, 1978.
[2] Singh, A, *Road Safety Education in Primary and Middle Schools*, Supplementary Report 207UC. Crowthorne, TRRL, 1976.
[3] Whitaker, J, *Motor Cycle Safety—Accident Survey and Rider Injuries*, Supplementary Report 239. Crowthorne, TRRL, 1976.

Motorcycle crash helmets

SIR,—The comments made by Dr Richard Garratt (10 February, p 413) on freedom of choice in the wearing of motorcycle crash helmets raise a number of points that are a good deal more important than just the simple issue of compulsion.

The value of crash helmets in preventing serious head injuries is now proved beyond doubt, although certain design features could still be improved. Not only is there evidence to prove the value of this specific intervention measure but there is now sadly very convincing evidence from the USA to show the dire consequences of relaxing such measures. In the USA by the end of 1978 some 26 States had repealed mandatory crash helmet laws.[1] In spite of assurances to the contrary, in most of these States helmet-wearing rates fell rapidly from over 95% to below 60%. In the States for which data are available fatal head injuries in motorcyclists doubled soon after the repeal was introduced. For those motorcyclists not wearing crash helmets there were twice as many head injuries and three to nine times as many fatalities (figures vary from State to State) as in riders who were wearing helmets.

It is wrong for Dr Garratt to say that wearing or not wearing crash helmets affects no one but the rider. Notwithstanding the human tragedies affecting family and friends, the costs of treating and rehabilitating patients with head injuries are considerable. A small proportion never fully recover and require lifetime support from family and the State. The widespread usage of crash helmets has prevented many of these tragedies but sometimes the force of the impact is so severe that no amount of protection is going to prevent serious injury. Our already unacceptably long waiting lists would be even further extended were crash helmet laws to be repealed.

In view of the very serious nature and high numbers of motorcycle accidents (in 1976 in Britain motorcycles accounted for 20% of all casualties in road traffic accidents yet they accounted for only about 2·3% of the total motorised milage[2]) there is even a case for still further legislation. No other methods have yet been shown to be effective in significantly reducing the carnage. There is particularly a need to pay attention to the teenage males who account for half of all motorcycle casualties (in 1975)[3] and among whom (in 1975) 43·3% of all deaths result from road traffic accidents. Young adult men are also very much at risk, especially in cars. Both of these groups are also responsible for involving many other innocent people such as passengers or other road users in many accidents.

The use of dipped headlights, bright clothing, and bright helmets ("Bright Gear Rules, OK") make the motorcyclist far more conspicuous and have been proved in parts of the USA to reduce accidents by as much as half. Since efforts at voluntary compliance have had only limited success in Britain the next logical step is legislation. The argument for compulsory training and testing before being allowed on the road is, so far, less convincing, although if pilot licensing principles were applied (would they be so impracticable?) we could confidently expect to see higher standards of riding and safety. We still do not have a planned programme of road safety teaching in many of our schools so how can we expect any more specialised training to succeed at a later date? Since jumping on to a motorcycle is the greatest threat to the life and health of a teenager it surely behoves us to do as much as we can to reduce the risks. Public health ordinances were enacted for certain diseases on evidence of far less risk than this.

Finally, if the anti-compulsion lobby really wish to press their case it is as well to point out that nobody obliges them to ride a motorcycle on the public roads. That is where the personal choice lies. Having once decided to ride a motorcycle it is not unreasonable to require the rider to comply with a law which has been introduced very much in the interests of themselves and of society generally.

Much as one sympathises with the "freedom of choice" point of view this is such a serious community health problem that one would hope that good sense will prevail. The majority accept crash helmet legislation as being reasonable and sensible. Let us keep it that way.

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[1] US Department of Transportation. News Release, NHTSA 3-79 Washington DC, 1979.
[2] Royal Society for the Prevention of Accidents. *Road Accident Statistics 1976*. Birmingham, ROSPA, 1978.
[3] Department of Transport. *Road Accidents, Great Britain 1975*. London, HMSO, 1977.

Fatal accidents on non-gritted roads

SIR,—Dr P J Tomlin's letter about fatal accidents on ungritted roads (24 February, p 547) does an injustice to the Health and Safety Executive as he is accusing it of ignoring a situation outside its terms of reference.

The HSE is empowered by the Health and Safety at Work Act and the Factories Act to inspect the work premises and processes, and the people employed in them, to ensure that all is well. The Factory Inspectorate and Employment Medical Advisory Service carry out these functions. The conditions of roads and accidents which occur on them are covered by bylaws and the Road Traffic Acts, and as such are the responsibility of the local authorities, the police, and fire and ambulance services.

His point about the results of non-gritting are taken. One hopes that similar letters about results of action by the medical profession never need to be written.

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Driving after anaesthetics

SIR,—In the third edition of *Medical Aspects of Fitness to Drive*[1] Dr J D J Havard, principal deputy secretary, BMA, writes, "With most