Medical restrictions to driving: the awareness of patients and doctors

Rosemary Kelly, Timothy Warke, Ian Steele

Summary
The study was set up to investigate the awareness of elderly patients and medical doctors of medical restrictions to driving. Separate questionnaires were completed by patients and doctors. All were interviewed face-to-face, without prior warning and their immediate answers were recorded. In total, 150 elderly patients from the acute elderly care wards, rehabilitation wards and day hospital, and 50 doctors (including all grades from consultant to junior house officer) were interviewed. The main outcome measures were numbers of patients currently driving and previously driving; patients' awareness of how their medical condition affected their ability to drive; doctors' spontaneous knowledge of medical conditions which restrict driving, current licensing policy, and restrictions for five specific medical conditions (epilepsy, myocardial infarction, stroke, 5-cm abdominal aortic aneurysm, and diabetes).

Patients were interviewed by one of the investigators (TW) and their answers recorded on the questionnaires. In addition, the medical notes of the patients were reviewed for any documented evidence of a medical restriction to driving. The doctors were interviewed without prior warning by TW and answers were recorded on the questionnaire. The doctors' questionnaire was designed in two parts, firstly to test their spontaneous knowledge of restrictions and the procedures used for reporting, and secondly to test knowledge of restrictions for five specific conditions. Participation by patients and doctors was voluntary.

Study population
All patients within the acute geriatric medical wards, the rehabilitation wards and the geriatric day hospital were interviewed. Consecutive new admissions to these units were then interviewed, up to a total of 150 patients. All available doctors attached to the geriatric unit were interviewed and in addition doctors consecutively encountered elsewhere by TW were approached, bring-

Patients' questionnaire

Patient asked face-to-face:
- do you drive a car?
- when did you last drive a car?
- what is the longest journey you have driven recently?
- do you intend to drive again?
- do you know of any medical reason that would prevent you from driving?

From the patient's chart:
- is there any reason that prevents this patient from driving?

Box 1

Doctors' questionnaire

- at what age are licences reviewed for fitness to drive?
- how often is the licence issued thereafter?
- name some medical conditions that should be reported to the appropriate authority(s)?
- where would one report these conditions?
- where would one obtain further information on these conditions and restrictions?
- what are the driving restrictions for epilepsy, stroke, myocardial infarction, >5 cm abdominal aortic aneurysm, diabetes mellitus?

Box 2

It is recognised that the number of elderly people who are driving in the UK is increasing rapidly. Many elderly people have multisystem disease and many of these medical conditions will carry driving restrictions. We set out to study the awareness of elderly patients and medical staff of these driving restrictions.

Subjects and methods

Study design
Two questionnaires were prepared, one for patients (box 1) and one for doctors (box 2).
Correct answers to doctors’ questionnaire

- licence reviewed at 70 years for fitness to drive
- licence renewed every 3 years maximum
- patients report conditions to DVLA (Coleraine)
- and their insurance company
- further information obtained from DVLA central office in Swansea

Box 3

Correct restrictions for specific conditions (Group 1 licences)

- epilepsy: 1 year fit free when awake, seizures only when asleep for 3 years
- stroke: 4 weeks minimum restriction
- myocardial infarction: 4 weeks if uncomplicated
- >5 cm abdominal aortic aneurysm: no restriction
- diabetes mellitus: restricted if recurrent hypoglycaemia, loss of awareness of hypoglycaemia or visual deficit

Box 4

ing the total to 50 doctors (nine junior house officers, 24 senior house officers, two specialist registrars, seven consultants, five general practitioner trainees and three general practitioners).

Results

THE PATIENTS
Out of 150 patients interviewed, 85 were female and 65 male. The age range was 60–95 years with a mean of 77.7 years. All patients agreed to participate. Only 21 patients were currently driving, 15 males and six females. The age range was 60–89 years with a mean of 73.5 years. Fourteen of these drivers were regularly completing journeys of more than 25 miles and three drivers had completed journeys of 150 miles or more in the 3 weeks prior to the interview. Following completion of the questionnaire and review of their medical notes, six of the 21 drivers were found to have a medical restriction to driving (three had recent strokes, two had dementia and one had unexplained syncope). All were advised to stop driving.

Of the 150 patients, 103 perceived themselves eligible to drive. In total, 48 of the 103 patients would not have been eligible to drive as a result of a medical restriction found during the questionnaire or review of the medical notes. Of the 47 patients who perceived themselves not eligible to drive, 17 were possibly eligible. Nine patients felt they were not eligible to drive because of previous strokes, but two of these patients may have been eligible. Of 13 patients with known cardiac disease who felt they were not eligible to drive, four were correct, five were eligible to drive and four had a different medical restriction to driving of which they were unaware.

Forty-three patients who were not current drivers had driven a car previously and 26 of these had stopped after the age of 60 years, with one driver having stopped aged 90. Seven had stopped driving for medical reasons; one of these ex-drivers was possibly in fact eligible to drive. When asked if they considered themselves still eligible to drive, the remaining 36 ex-drivers said they were. However, 24 had developed a medical restriction to driving of which they were unaware.

THE DOCTORS
All doctors who were approached agreed to participate. The correct answers to the doctors’ questionnaire are shown in boxes 3 and 4. Twenty-four of the 50 doctors knew the correct age of licence review for fitness to drive was 70 years. The age range given by doctors was 50–85 years. Only nine doctors knew the frequency of licence review was every 3 years. The range of answers was from no review to a 15-year review.

When asked about the medical conditions that should be reported to the appropriate authorities, doctors most often spontaneously mentioned epilepsy (46). Other conditions included myocardial infarction (30), visual deficit (30), stroke (24), diabetes (21), blackouts (nine), and dementia (two).

The patient should report medical conditions to the Driver and Vehicle Licensing Authority (DVLA), which in Northern Ireland is in Coleraine, and to the driver’s insurance company. Only one doctor knew this; 26 others knew to report it to the DVLA but did not mention the insurance company. Three doctors admitted no knowledge of where reporting took place.

Written information on medical restrictions to driving is available from the DVLA in Swansea. Only one doctor knew this; seven admitted they could not answer this question, and the other 42 gave a wide range of responses including contacting the Royal Ulster Constabulary or checking in the British National Formulary.

Nine doctors gave the correct driving restrictions for epilepsy, five for myocardial infarction, four for stroke, 22 for abdominal aortic aneurysm, and eight for diabetes. The correct responses are shown in box 4.

Discussion

This is the first study that has evaluated knowledge of medical restrictions to driving on a face-to-face basis. Doctors were interviewed in this way in an attempt to simulate normal medical practice where a spontaneous response to an enquiry about driving is required but reference to the appropriate literature may not be possible. We have shown that doctors’ knowledge of medical restrictions to driving is poor. A recent study has shown that, even among geriatricians, knowledge and attitudes to driving in older people varies considerably.1

Previous work using a postal questionnaire of 121 doctors suggested a higher level of knowledge than our survey, with a high percentage of correct responses, eg, benign essential tremor 99%, severe asthma 95%.4 However, the responses for the specific conditions also used in our questionnaire (uncompli-
Medical restrictions to driving

cated myocardial infarction, 35% correct responses; stroke with left hemiplegia one month ago, fully resolved, 20% correct responses) showed a similar poor level of knowledge to that recorded in our survey. These are common medical conditions seen in everyday practice and we believe that these driving restrictions should be known without needing to refer to the appropriate literature.

In addition, we demonstrated that the doctors we interviewed were unaware of where to find this information if they did not know the correct answer. The medical profession needs to be aware of the current guidelines of the DVLA on medical restrictions to driving to safeguard patients and the general public as well as for medicolegal purposes. On detection of a medical condition which means the medical standards for driving cannot be satisfied, doctors should advise the patient not to drive. The patient should inform the DVLA of their condition and inform their insurers. The doctor advising them should document the advice clearly in the medical notes. The decision on fitness to drive is that of the DVLA and they may arrange further assessment of the patient as required.

In the present study, only a relatively small proportion of patients were still driving (14%). While this may relate to the catchment area of the hospital (inner city with a high level of unemployment), the proportion of our patients who had driven after the age of 60 was considerably higher (31%). Therefore the issue of eligibility to drive had previously been relevant to a large proportion of our patients, even if they were not driving at the time of the questionnaire.

While some patients adapt driving techniques as their ability decreases (eg, reduced speed of driving, reduced distances of driving), which may represent a form of self-regulation, we have shown that 44% of the elderly patients we interviewed assessed their eligibility to drive incorrectly. A large number of elderly patients are therefore not able to decide correctly for themselves if they should continue driving. As the number of elderly drivers grows, doctors will increasingly have to educate patients about driving restrictions. Our study shows that doctors need to be able to advise patients this topic to be able to do this. Patients feel that their doctors should advise them regarding their driving, but it may be that doctors are reluctant to do this.

In a study of 64 patients referred to a syncpe clinic, 40% were drivers, but only 13% could remember being asked about driving by their referring doctors. The decision to stop driving is complex. Campbell et al list six conditions that are regarded as contributing to 50% of the decisions to stop driving (macular degeneration, activity limitation, syncpe, Parkinson’s disease, retinal haemorrhage, stroke sequelae), but point out that half the people with these conditions continue to drive. It may be that the most frequent reason elderly people will give for stopping driving is financial, but it is possible that this explanation is more acceptable to them than admitting to loss of confidence or significant illness.

Conclusions

We conclude from our study that patients have difficulty knowing if, as a result of their medical condition, they are eligible to drive or not. If patients are not able to decide this, then doctors need to be able to advise patients appropriately. We have shown that medical staff do not seem able provide this guidance. To increase the awareness of doctors of medical restrictions to driving, greater emphasis must be placed on this aspect of patient care during both undergraduate and postgraduate training.

Summary points

- Patients are not generally aware of medical restrictions to driving
- Doctors’ knowledge of medical restrictions to driving is poor
- Patients need to be specifically asked if they drive
- Education is needed at both undergraduate and postgraduate level
- Doctors should be aware that information is available in the publication ‘Medical aspects of fitness to drive’

Box 5

1 Department of Transport. The older driver: measures for reducing the number of casualties among older people on our roads. London: Department of Transport, 1991.
2 Drivers Medical Unit, DVLA. For medical practitioners: at a glance guide to the current medical standards of fitness to drive. Swansea: DVLA, 1998.
3 Gillespie ND, Lien CT, McMurdo MET. The attitudes of geriatricians to driving in older patients. Age Ageing 1998;27(suppl 1):42.
8 Malfetti J. Drivers 55 plus: Falls Church, VA: AAA Foundation for traffic safety, 1985.
12 Bishop-Miller J, Leven SJ, Collinge NR. A community study of driving in the elderly. Age Ageing 1998;27(suppl 1):46
Medical restrictions to driving: the awareness of patients and doctors

Rosemary Kelly, Timothy Warke and Ian Steele

Postgrad Med J 1999 75: 537-539
doi: 10.1136/pgmj.75.887.537

Updated information and services can be found at:
http://pmj.bmj.com/content/75/887/537

These include:

References
This article cites 6 articles, 4 of which you can access for free at:
http://pmj.bmj.com/content/75/887/537#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections

- Drugs: cardiovascular system (364)
- Epilepsy and seizures (29)
- Diabetes (141)
- Ischaemic heart disease (141)
- Stroke (138)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/