Driving, glaucoma, and the law

Regular checks on medical fitness to drive needed

EDITOR,—Potamitis and colleagues draw attention to widespread ignorance about regulations concerning visual fields for driving.¹ Because drivers are required to pass a visual acuity test as part of their driving test, however, most are aware of visual acuity as a component of visual function and of its relevance to driving. This does not necessarily imply greater compliance with the regulation concerning visual acuity than with those concerning visual fields.

We recorded visual acuity (with glasses if worn) in consecutive patients attending the accident and emergency service at Manchester Royal Eye Hospital. Over one month 1426 patients were tested, of whom 177 had a visual acuity insufficient for legal driving. Most of these patients did not drive, but 42 still drove a car. Of these 42, 21 were "borderline" failures (6/12 in the better eye) but the remaining 21 would definitely have failed a standard numberplate reading test. All these patients had evidence of chronic visual loss, which was correctable by refraction in only some cases.

Clearly, patients with acute eye problems may have acute visual deterioration. Such deterioration, however, is almost invariably unilateral. For driving a car, acceptable vision is only required in one eye. There was no evidence to suggest that these data were invalidated by acute, temporary visual loss in these patients.

Potamitis and colleagues rightly recommend that greater information should be made available to drivers, both from the Driver and Vehicle Licensing Agency and from ophthalmologists. The key role of optometrists should also be made clear. The authors comment that patients need more information and imply that this will in itself improve driving safety by resulting in voluntary withdrawal on the part of unfit drivers, but this is merely an assumption. Do we not need regular checks on medical aspects of fitness to drive, even for people under retirement age?

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1 Potamitis T, Aggarwal RK, Tsaloumas M, McLaughlin J, O'Neill E. Driving, glaucoma, and the law. *BMJ* 1994;309:1057-8. (22 October.)

Patients need more information

EDITOR,—T Potamitis and colleagues found that 83% of patients with glaucoma who were drivers had not informed the Driver and Vehicle Licensing Agency of their diagnosis.¹ We have conducted a study in which the agency's criteria for visual fitness to drive were applied to a group of patients with glaucoma and to controls.

We examined 52 consecutive patients with glaucoma and 52 controls matched for age who had no evidence of sight threatening disease. A questionnaire on driving was administered to

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all subjects, after which their visual fields were documented in the manner specified by the Driver and Vehicle Licensing Agency and their visual acuity, with spectacle correction if spectacles were worn, was assessed. The drivers were then classified as "pass" or "fail." There was no significant difference in the proportion of subjects in each group who had continued to drive: 24 patients with glaucoma and 27 controls ($\chi^2=0.15$, $P=0.7$). Three of the patients with glaucoma who had continued to drive and none of the controls failed the visual tests.

The three patients with glaucoma who failed the tests did so because of reduced visual fields (two cases) and reduced visual acuity despite spectacle correction (one). These patients were aware of their visual loss. Two of them reported that they had not been warned against driving and that they had assumed that their ophthalmologist would inform them if they were unable to drive.

We found that three (12%) of the 24 patients with glaucoma who had continued to drive were doing so with inadequate visual function according to the criteria of the Driver and Vehicle Licensing Agency. The same proportion of both patients with glaucoma and controls were driving. In Britain there are 25 million people aged 40 or more, of whom 0.4% will have glaucoma.² If the figures from our study are applied to this total there are 5520 patients with glaucoma driving with inadequate visual function, as defined by the Driver and Vehicle Licensing Agency. This estimate is intended only as an illustration; at least in our group of subjects, the present system has not ensured that patients with glaucoma who drive have the appropriate visual function. More widespread information for patients and their ophthalmologists about the obligation to inform the Driver and Vehicle Licensing Agency about a diagnosis of glaucoma is needed to improve this situation.

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1 Potamitis T, Aggarwal RK, Tsaloumas M, Rene C, McLaughlin J, O'Neill E. Driving, glaucoma, and the law. *BMJ* 1994;309:1057-8. (22 October.)

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Diabetic patients must also satisfy regulations

EDITOR,—Potamitis and colleagues draw attention to the low level of awareness among patients with glaucoma of their legal requirement to inform the Driver and Vehicle Licensing Agency of their condition.¹ The agency's regulations also require diabetic patients to have their binocular field of vision assessed if they have declared that they have undergone laser treatment. Treatment for proliferative retinopathy often requires the application of laser beams to all retinal areas outside the macula; this can have a severe effect on the patient's visual field. In one study 15 of 30 patients treated with panretinal photocoagulation failed the agency's regulations regarding visual fields.² Other investigators, however, have found that if a laser beam spot of smaller diameter is used less loss of visual field occurs.³

In her commentary on Potamitis and colleagues' report Margaret Hawkins states that patients with glaucoma at any stage must notify the Driver and Vehicle Licensing Agency.¹ She also declares that "failure to advise their patients correctly may render doctors liable to litigation." The same rules thus apply to diabetic patients who have undergone laser treatment. The only way accurately to advise patients with diabetes or glaucoma of their legal driving status (and thereby avoid possible litigation) is to plot their binocular visual fields. This test is not routinely done in the management of patients with either diabetes or glaucoma, and thus to implement it would pressurise an already overtaxed facility. It would also lead to an increased interval between routine tests of visual fields, which are required for the management of glaucoma. This might compromise the care of patients with glaucoma. Alternatively, new staff would have to be recruited to take on the increased workload.

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2 Buckley SA, Jenkins L, Benjamin L. Fields, DVLC and panretinal photocoagulation. *Eye* 1992;6:623-5.

3 Hulbert MFL, Vernon SA. Passing the DVLC field regulations following bilateral pan-retinal photocoagulation in diabetics. *Eye* 1992;6:456-60.

Visual field required for safe driving wrongly defined

EDITOR,—T Potamitis and colleagues highlight the fact that doctors and patients are often unaware of the driving standards set by the Driver and Vehicle Licensing Agency on the recommendation of the Royal College of Ophthalmologists.¹ The definition of the visual field required for safe driving given by Margaret Hawkins in her commentary on their paper, however, is inaccurate.¹ Her statement that the field should be at least 120° along the horizontal is correct, but the vertical component should measure 20° above and below the horizontal, not 20° above or below as stated.

The standard defined by the Royal College of