

MEDICAL STANDARDS OF FITNESS FOR DRIVING IN MALTA

ALF. GRECH

M.D., D.P.H., D.I.H., D.M.R. (COPEN.)

Senior Occupational Health Officer

Teacher, Dept. of Medicine,

Royal University of Malta

Summary: The arrangement in Malta whereby every applicant for a driving licence is examined by a medical practitioner and any "abnormal" case is referred to the Chief Government Medical Officer for advice is described.

The classification of licences and the categories of drivers are given.

The fitness standards required for driving are discussed.

The periodic medical examination of public-service vehicle drivers is recommended.

The Motor Vehicles Regulations, 1948, require that an applicant for a licence has to be examined by a qualified medical practitioner who certifies on a prescribed form the driver's state of physical and mental health. Apart from standards of hearing and vision which have been worked out by the Chief Government Medical Officer and circulated to all practising doctors, the examining physician is at liberty to form his own judgement as to the applicant's fitness to drive. Any abnormality or disability found on examination, however, has to be indicated in the medical certificate and these "abnormal" cases are referred invariably by the Commissioner of Police to the Chief Government Medical Officer for advice. As a consequence of this policy, a dossier of such cases has been building up throughout these last eight years and certain rules or guide-lines on physical disability, mental disorder, cardiac disease and other conditions have emerged.

Licensing

The Licensing Authority in Malta is the Commissioner of Police who is empow-

ered under the Motor Vehicle Regulations to issue, renew or revoke a driving permit. There is no specific law which states that certain medical conditions are incompatible with the issue of a driving licence. But there is a general provision which enables the Commissioner of Police to "revoke any driving licence if he is satisfied that the holder thereof is unfit, on any medical grounds, to drive, without risk to himself or to the public, any motor vehicle....."

Categories of Drivers

In Malta, there are five groups of driving licences, namely:

Group No. 1 — Private Car

— authorises holder to drive light cars, vans and trucks; in specific cases, however, it may relate to one type of vehicle to the exclusion of the others.

Group No. 2 — Motor Cycle

— covers also motor scooters and lambrettas.

Group No. 3 — Special

— authorises holder to drive garage-hire cars and taxi-cars.

Group No. 4 — Motor Omnibus

— authorises holder to drive public-service vehicles and vehicles falling under Group No. 1.

Group No. 5 — Private (Handicapped Persons)

— authorises holder to drive one specific car specially adapted to suit his disability.

It is a workable classification fairly representative of the types of vehicles on the road and there is no compelling need to change it other than to include trucks

and heavy motor vehicles under Group 4 or, possibly, to group them separately. In general, the medical requirements for public-service vehicle (PSV) drivers are more strict than those for light vehicle drivers; the handicapped driver is a class on his own and much time and effort are spent in assessing each individual case with a view to enabling him to drive safely.

Examination of Drivers

The arrangement whereby every applicant is screened by a general practitioner, usually the family doctor, and all "abnormal" cases are investigated by the Chief Government Medical Officer has much to commend it. There are conditions which only the family physician with his intimate knowledge of the applicant's social and home background is in a position to indicate — epilepsy, alcohol or drug addiction, psychopathic tendencies. The link, however, between the general practitioner and the Chief Government Medical Officer is the Commissioner of Police and this raises the question of medical ethics. On the other hand, the Commissioner of Police cannot afford to relax his vigilance and, moreover, the applicant's consent to making known to the licensing authority the findings of the medical examination can be assumed.

Eyesight

Eyesight tests are required for all categories of drivers before a licence is granted, and if these tests indicate that the driver needs glasses for driving, this fact is recorded on his licence.

Visual Standards

Our visual standards are as follows:

- a) Visual acuity with or without glasses of 6/12 (Snellen) in one eye and any useful vision in the other for Groups 1, 2, 3 and 5.
- b) Visual acuity with or without glasses of 6/12 (Snellen) in the better eye and not less than 6/36 (Snellen) in the other eye for Group 4.

- c) Monocular vision. — Visual acuity with or without glasses less than 6/12 (Snellen) is a barrier to driving. One-eyed applicants are not allowed to drive vehicles falling under Groups 2 (applicable to left one-eyed persons only), 3 and 4, but may drive vehicles under Groups 1 and 5 provided that:
 - i. a certificate is produced every year from an ophthalmologist to the effect that the field of vision in the good eye is full and normal as assessed by a perimetry examination; and
 - ii. in the case of left one-eyed applicants (blind right eye), a side mirror is fixed on the car in such a position as to overcome the restriction of the right lateral field of view and, thus, enable the driver to see an overtaking car in good time. (Motor driving in Malta is on the left side of the road).

In the case of left one-eyed (blind right eye) motor cycle applicants, the adaptation of a side mirror is not of any practical benefit as the front part of a two-wheeled vehicle is continually changing its position, thus disturbing the required angle of fixation of the mirror.

Our visual standards fall short of those recommended by the World Health Organisation, although they are equivalent to those obtaining in the United Kingdom. For example, in respect of PSV drivers, the total visual acuity recommended is at least 1.6 or 1.7 (decimal notation) as compared with our 0.67; in respect of light motor vehicle drivers, 0.8 (W.H.O.) against our 0.5.

Visual Fields

Under our present arrangements, only one-eyed applicants and cases presenting unusual features in visual acuity are referred to an ophthalmologist and then a

perimetry examination is required. A full perimetry examination for routine screening purposes is time-consuming and not really warranted in view of the low yield of positive findings. A fairly accurate measurement of the lateral vision can be obtained by means of the finger-confrontation test, made with each eye separately, and it has been suggested to the licensing authority that the Application Form should include the question: "Is the applicant's field of vision by hand test satisfactory?"

Hearing

Auditory Requirements

In testing for hearing of applicants for a motor vehicle driver's licence, the following considerations are taken into account:

- a) applicants who hear conversational voice (C.V.) at a distance of 15 feet or more are considered fit to drive any vehicle;
- b) applicants who hear C.V. at a distance of less than 15 feet are referred to the Chief Government Medical Officer for advice;
- c) applicants who hear C.V. at a distance of 15 feet with the help of a hearing aid are referred to the Chief Government Medical Officer for advice;
- d) applicants who suffer from more than a minor degree of deafness are not permitted to drive public-service vehicles.

These considerations, in particular (b) above, stem from the fact that rigid standards of hearing cannot be laid down and that factors other than hearing have to be reckoned in sub-standard cases, such as type of vehicle, competence of driver, nature of hearing defect. Hearing aids have been found to be of little benefit because of extraneous noises and difficulty in locating a sound (Norman, 1962). Studies have shown, moreover, that drivers with defective hearing have a slightly lower than average risk of accident involvement (McFarland, 1937).

Physical Disabilities

No effort is spared to enable an applicant with a physical disability to drive with safety: our golden rule is to concentrate on the residual function rather than on the disability itself. Thus, our assessment of physical disability is based on mechanical considerations, that is, whether the disability or deformity is likely to interfere with the efficient and rapid manoeuvring and handling of controls under all driving conditions, including emergency action.

In cases of doubt, an applicant with a physical disability is subjected to a special driving test by the Licensing Authority, at which a doctor from the Occupational Health Unit always attends. If applicant fails the test, we advise him on the type of specially adapted car (not necessarily an "invalid" car) best suited to meet his requirements — a form of motoring ergonomics. He is then given a Group 5 licence and the registration number of the specially adapted car is recorded on his driving licence. On the social plane, physically handicapped persons can obtain exemption from car licence fee and import duty.

Upper Limbs

Our primary consideration is that the driver should be able to control effectively the steering-wheel at all times: during gear-changing, sudden braking and even whilst operating the traffic indicator lever. Thus, the net function of both upper limbs as translated into one combined effort of gripping and manipulating the steering-wheel and gear-changing is assessed and actually tested in a trial drive. A basic condition is that the normal hand (in a unilateral disability) and the functional hand (in a bilateral disability) must be used to hold the steering-wheel. In certain circumstances, adaptations to the car are found to be necessary, especially in the manner of gear-changing; however, with the advent of full automatic transmission, even in small cars, our task has been made easier.

The wearing of a prosthesis is not ge-

nerally encouraged in view of the lack of facilities for rehabilitation.

Lower Limbs

The emphasis here is on the braking power of the right lower limb. But whatever the disability in the lower limbs, there is nowadays a safe and well-tried conversion to hand control available. When the disability is such as to be incompatible with the issue of a Group 1 licence, we recommend the following conversions:

- A. For disablement of both lower limbs
 - car is to be fitted with manual control of the accelerator, brake and clutch;
- B. For disablement of right lower limb only
 - car is to be fitted with manual control of the accelerator and brake;
- C. For disablement of left lower limb only
 - car is to be fitted with manual control of the accelerator and clutch: the driver can operate the foot brake and accelerator with his right foot, but needs hand accelerator control when moving off on a slope;
- D. For partial disablement of right lower limb
 - car is to be fitted with hand throttle control (with pre-set lever).

Marked Physical Disabilities

Persons with marked physical disabilities, such as amputation of a limb or more than 3 fingers, are not permitted to drive public-service vehicles. In the case of a taxi-cab driver, any physical disability must not hamper him from carrying out duties ancillary to his trade, e.g. prompt opening of doors and lifting and carrying luggage.

Cardiovascular Conditions

In view of the special arrangement with the Commissioner of Police, all applicants certified to be suffering from a

cardiovascular condition are invariably referred to the Chief Government Medical Officer for advice. An evaluation of each case is made by a Government Consultant Physician, including the taking of an electrocardiogram and a radiograph when indicated. Periodic medical observation can be made a condition in the driving permit.

Sudden collapse in the driver's seat and its consequences have been the subject of a number of reports (Peterson and Petty, 1962; Myeburg and Davis, 1964). Ischaemic heart disease provides the greatest risk, but the evidence to date indicates that the accidents following such collapse have been minor in degree, causing little damage to property and no serious injury to pedestrians, passengers or other drivers. It is the experience of many workers in the field of road accident prevention that persons so afflicted while driving usually have sufficient warning and presence of mind to slow down or stop before losing consciousness. Nonetheless the seventeen countries surveyed in 1968 by a Co-ordinated Medical Team (Council of Europe), of which the writer was a member, regard several cardiovascular conditions as being an absolute bar to driving any vehicle.

In Malta, cardiovascular diseases with increased liability to attacks of sudden loss of consciousness, faintness or sudden physical weakness (e.g. aortic vascular disease and persistent hypotension) preclude the sufferer from holding a driving licence. Such condition as aortic regurgitation constitutes an obvious danger and is a barrier to driving any vehicle. The difficulties in assessing arterial hypertension are well known; but it is generally agreed that applicants whose systolic pressure is persistently over 200 mm Hg, or a diastolic pressure persistently above 100 mm Hg, should not drive public-service vehicles (World Health Organisation, 1956). Organic heart disease, including valvular defects, coronary disease, angina pectoris or auricular fibrillation, equally disqualifies the sufferer from holding a licence under Group 4 — even a mild mitral stenosis which may progress to auricular fibrillation with its risk of embolism.

Diabetes

The group of diabetic subjects is obviously not homogenous, especially from the point of view of safety in driving. We try to define diabetic types according to the period of life when the disease begins and becomes manifest, i.e. the so-called growth-onset or adult-onset diabetes, and according to the need for, and response to, treatment, i.e. insulin-dependent diabetes. It is more than likely that the adult onset diabetic is already an experienced driver and is much less dependent on insulin.

It is universally accepted that no applicant under treatment with insulin is allowed to drive a public-service vehicle, even though the evidence incriminating hypoglycaemic attacks as a cause of road traffic accidents is scanty indeed (Norman, 1962).

Mental Disorder

In recent years, the Chief Government Medical Officer, in consultation with Government Psychiatrists, has evolved a procedure which is now normally followed in the case of applicants for driving stated to be suffering from a mental disorder.

- 1) Such an applicant, like all other prospective drivers, has to produce a medical certificate of fitness to drive, but in his particular case, the certificate must expressly state that applicant is "mentally fit to drive".
- 2) If the certificate is signed by a recognised psychiatrist, the licence may be issued, usually with qualifying reservations.
- 3) If the certificate is signed by a general medical practitioner, the relevant application is referred to the Chief Government Medical Officer who undertakes to sound, on an informal basis, the doctor's views on whether a second opinion by a psychiatrist is considered necessary. If such an opinion is not considered necessary, then the licence may be issued

on the strength of the general practitioner's certificate, usually with qualifying reservations. In practice, the psychiatrist is almost always consulted.

Psychosis

In most psychoses, lack of insight or judgement is a cardinal symptom and there is always the danger of a relapse. The qualifying reservations concern the applicant who undertakes:

- a) to follow the treatment prescribed by the psychiatrist (or general medical practitioner);
- b) to visit the psychiatrist (or general medical practitioner) at intervals to be specified by the respective doctor in charge of the case; and
- c) to authorise in writing the psychiatrist (or general medical practitioner) to report to the appropriate authority —
 - i. any deterioration in applicant's mental state which may affect his fitness to drive; and
 - ii. failure on applicant's part to keep a follow-up appointment.

Epilepsy

Epilepsy, both grand mal and petit mal, notwithstanding recent development in treatment, is an absolute bar to driving a public-service vehicle. Its danger lies not in the frequency of its occurrence but rather in its suddenness and unpredictability.

As a general policy, we stipulate certain conditions prior to granting a driving licence (other than Groups 3 and 4) to an epileptic, namely, *inter alia*, freedom from fits for 5 years or, preferably, normalisation of the EEG pattern owing to either drug therapy or spontaneity. In the United Kingdom, it is proposed to introduce legislation so as to enable driving licences to be granted to persons with epilepsy who are certified by a doctor to have been free

of any attack for at least three years, with or without treatment, or to have attacks during their sleep only. This concession would not apply to drivers of public-service vehicles, heavy goods vehicles or taxis.

Periodic Medical Examinations

There is no statutory provision for the periodic medical examination of any category of driver; but the periodic medical examination of certain selected cases, irrespective of the category to which they belong, can be made a condition of the licence at the time of application. The nature and extent of this examination may vary from a general medical re-assessment to a specific testing of eyesight, hearing, mental fitness, or muscular power.

The Chief Government Medical Officer, moreover, has recommended to the licensing authority that:

- a) PSV drivers should be examined at the ages of 50, 55, 60 and 65, and annually thereafter; and

- b) the licence of PSV drivers should be suspended if it comes to the notice of the Police that absences have occurred due to diseases of the heart, epilepsy, fainting, vertigo or any accident, until such time as a medical certificate stating that the driver concerned is fit enough to hold a Group 4 licence is produced to the Police.

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