THE SOUTH AFRICAN SOCIETY OF OCCUPATIONAL MEDICINE

SASOM
South African Society of Occupational Medicine
FOUNDED IN 1948

MEDICAL REQUIREMENTS FOR FITNESS TO DRIVE

GUIDELINE DOCUMENT 06

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PREFACE

The SASOM Fitness to Drive Guideline remains an important reference point for South African professionals tasked with adjudicating the fitness of vocational drivers, as well as a benchmark against which other fitness to work standards are measured. As anticipated, it has continued to evolve, since the last edition in August 2011.

This edition represents a significantly revised text, including new sections such as:

- Design of a driver fitness medical testing program
- Criteria relating to Fitness to Drive (suggested cut-offs at medical testing)
- MEC notification by drivers or healthcare professionals
- Transient loss of consciousness
- Disabilities and vehicle adaptations

As always, we sincerely hope that those who make use of this revision find the changes helpful and find the guideline easy to use.

Dr Greg Kew
For the Professional Driver Medical Testing Guideline Committee
South African Society of Occupational Medicine

April 2017

DISCLAIMER

Whilst SASOM has made considerable effort to ensure correctness and accuracy of the contents of this document users of the document are advised to exercise care to consider the specific circumstances for which the document may be applied. The responsibility for the decisions taken by the user of this document remains with that user. Wherever the user is uncertain, SASOM advises the user to seek the opinions of experts in the respective fields for confirmation.

PART A: GENERAL OVERVIEW OF THIS GUIDELINE

INTRODUCTION

The motor vehicle, in all its forms, is an integral part of daily existence. In the working environment, self-propelled driven equipment introduces significant risk to employees, other road users, the driver him / herself, and the public. The risk is increased when the vehicle transports people or hazardous substances or if the environment introduces other factors such as high-speed traffic, interactions with pedestrians, poor visibility and unstable surfaces.

Motor vehicle accidents comprise a high morbidity and mortality burden on employers, employees and the state, and warrant tight controls to minimise the likelihood of their occurrence.

The guidelines and their development

The SASOM driver guidelines are drawn to a large degree from the publication "Assessing fitness to drive – a guide for medical professionals", which is updated and produced annually under the auspices of the United Kingdom's "Driver and Vehicle Licensing Agency" (DVLA). This publication summarises the national medical guidelines on fitness to drive for the UK. It is intended (in the UK) to assist doctors and other healthcare professionals in advising their patients:

- whether or not the DVLA requires notification of a medical condition
- what the licensing outcome from the DVLA's medical enquiries is likely to be

This licensing agency is deemed an appropriate reference for South African driving standards because the SA driving laws are so similar to those of the UK.

Some of the guidelines – for example, those around diabetes mellitus, epilepsy and vision – are set against legislative requirements in the UK, and others are the result of advice from the six Honorary Medical Advisory Panels, which cover:

- cardiology
- neurology
- diabetes
- vision
- alcohol or substance misuse and dependence
- psychiatry.

Each panel consists of acknowledged experts in the relevant area and includes DVLA and lay membership. The panels meet biannually and, between meetings, give continual advice to the Secretary of State and the DVLA.

SASOM hereby acknowledges the substantial contributions to this document from the DVLA, and notes that the DVLA has given written authorisation to SASOM to do so.

Where appropriate, the SASOM guidelines draw from South African law and Codes of Good Practice.

AIM

The aim of this guideline is:

- To provide the adjudicating medical examiner with scientifically acceptable and legally defendable guidelines & standards by which to determine fitness to drive.
- Through this, SASOM aims to contribute to a reduction in road accidents related to operator error, where these are caused by the presence of identifiable medical conditions.

Irrespective of category of licence held, all drivers of vehicles on public roads are subject to the requirements of the National Road Traffic Act (93 of 1996) (NRTA) in terms of ensuring their fitness to drive (Sections 15 and 16) and, in the event of an incident, to the penalties contained in the Act. This act is the main motivating force behind this guideline.

It should be noted, though, that employers have a duty of care for the health and safety of employees and related parties under the Occupational Health and Safety Act (85 of 1993) (OH&SA); additionally, specific regulations under the OH&SA address drivers of self-propelled mobile equipment, namely the Construction Regulations and the Driven Machinery Regulations. Furthermore, the Mines Health and Safety Act (29 of 1996) (MH&SA) also requires drivers to be certified medically fit to perform their duties. Therefore, this guideline aims to guide certifying practitioners in their adjudication under these acts as well.

DEFINITIONS / GLOSSARY

1. Driver and Vehicle Licensing Agency (**DVLA**) is the organisation of the **UK** government responsible for maintaining a database of drivers in Great Britain and a database of vehicles for the entire United Kingdom.
2. **MEC*** means a Member of the Executive Council appointed in terms of section 132 of the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996), and who is responsible for road traffic matters, or any other person authorised by him or her to exercise any power or perform any duty or function which such MEC is empowered or obliged to exercise or perform in terms of this Act; (Definition of 'MEC' substituted by s. 1 (f) of Act 8 of 1998.)

   * Note that for the purposes of this document, the Driver Licence Testing Centres (DLTC's) are considered the MEC's representatives. Where an application needs to be made to the MEC it is done through the DLTC's.
3. **Medical practitioner** means any person registered as such in terms of the Health Professions Act, 1974 (Act 56 of 1974).
4. **Occupational health practitioner** means an occupational health practitioner as defined in the General Regulations of the National Road Traffic Act, 1993 (Act No. 93 of 1996).

   ("occupational health practitioner" means an occupational health practitioner as defined in the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), who has successfully completed a health assessment course and was duly accredited to perform the functions of an occupational health practitioner")
5. **Fitness to drive***: A driver characteristic or a description of a driver, defined by the absence of any functional (sensory–perceptual, cognitive, or psychomotor) deficit or medical condition that significantly impairs an individual's ability to fully control the vehicle while conforming to the rules of the road and obeying traffic laws, or that significantly increases crash risk.
6. **Driving competency***: The demonstration of fitness to drive that meets criteria recognized by a body responsible for driver licensing. [Note: May be with or without restrictions or assistive technology or adaptive equipment.]
7. **Driving abilities***: The sensory–perceptual, cognitive, and psychomotor functions needed to control a motor vehicle in a range of traffic and environmental conditions.

8. **Operational level (of driving) ***: Controlling the motor vehicle through the physical actions of steering the wheel, moving or shifting gears, pressing the accelerator or brake, or using the turn signals; draws upon skills that are overlearned and habitual so that performance of such actions is largely automatic.
9. **Tactical level (of driving) ***: Executing manoeuvre control over the vehicle to complete a goal directed trip in response to prevailing conditions; including behaviours that are typically learned and practiced such as maintaining lane position or speed, obstacle avoidance, gap acceptance, obeying traffic signals, turning, and passing other vehicles.
10. **Strategic level (of driving)*:** The general planning of a trip, including trip goals, route, and modal choice with the associated costs and risks involved; also including the ability to adapt plans when necessary such as changing a route due to a crash or construction, needing to make an unexpected stop (e.g. to use a bathroom), a change in a trip's goals, or seeking help if lost.
11. **Physical driving limitation***: A limitation caused by the loss, abnormality, or decreased functioning (e.g. strength, range of motion, coordination) of a joint or limb involved in the actions required for driving.
12. **Driving impairment*:** A loss or decrement of any body part, organ system, or mental function that prevents the driver from performing the actions normally required for safe driving.
13. **Transient driving impairment*:** A limitation that is present for a finite time (e.g. hours, days, weeks, months), with an expectation of a return to normal driving functioning.
14. **Episodic driving impairment***: An impairment that occurs in an otherwise unimpaired driver, such as a seizure or a loss of consciousness, where prediction of the degree of risk is based upon the clinical situation and history of the individual driver.
15. **Permanent driving impairment:** An impairment that will not improve in the foreseeable future.

    * From Transportation Research Circular E-C211. "Taxonomy and Terms for Stakeholders in Senior Mobility". Transportation Research Board. Washington, DC, July 2016.

16. A **prescribed impairment** for the purpose of this guideline means medical condition listed in terms of section 15(1)(f) of the National Road Traffic Act and is a legal bar to the holding of the licence. An example is uncontrolled epilepsy.
17. A **relevant impairment** or the purpose of this guideline is any medical condition that is likely to render the person a source of danger while driving. An example is a visual field defect.
18. A **prospective impairment** is any medical condition, which, because of its progressive or intermittent nature may develop into a prescribed or relevant impairment in the course of time. An example is insulin treated diabetes. A driver with a prospective impairment may normally only hold a driving licence subject to medical review in one, two or three years.
19. A **sudden disabling event**, for the purposes of this guideline, is a medical condition that is likely to cause a sudden inability to control the vehicle safely with either:
    - A 20% likelihood of an event in 1 year (2% per annum) for Group 1 licensing, or
    - A 2% likelihood of an event in 1 year (20% per annum) Group 2 licensing

Note:

"**Less than 20% risk of a seizure in the next year**" is the level of risk found after 1 year without a seizure. This risk is not affected by the use of medication, as the probability of recurrence after one year free of seizures is the same in groups where no medication has been taken and in groups complying with anti-epilepsy medication.

"**Less than 2% risk of a seizure in the next year**" is derived from the background prevalence of epilepsy in the community, from extensive research in the UK, and elsewhere; this rate of recurrence that is only reached after 10 years free from seizures, without the use of anti-epileptic medication at any time during that period. This is the standard for Category 2 drivers as recommended by the Panel for the Driver & Vehicle Licensing Agency (DVLA) in the UK and has been adopted by SASOM as the minimum level of control for this category of drivers in South Africa.

For a list of literature references that validate this risk statement, see "Special considerations for epilepsy", in the chapter on neurological disorders.

20. **Professional Driving Permit (PrDP)**is an additional requirement prescribed under section 115 of the NRTA, in which a driver must obtain special authorisation from the Department of Transport.
21. **Acronyms for SA legislatio**n: (for further details on legislation see subsequent sections)
    - OH&SA: Occupational Health & Safety Act (85 of 1993)
    - NRTA: National Road Traffic Act (93 of 1996)
    - EEA: Employment Equity Act (55 OF 1998)
    - LRA: Labour Relations Act (66 of 1995)
    - MH&SA: Mines Health and Safety Act (29 of 1996)

Whilst this document remains a guideline, and therefore not a mandatory standard, certain words are used to convey specific meaning. For the purposes of this document, the following meanings shall apply to the words "must", "should", and "may".

MUST	Strongly recommended, usually based on a legal duty or standard.
SHOULD	Preferred action, based on available evidence and recommendations of experts.
MAY	Recommended action.

ROLES OF STAKEHOLDERS

The role of the **medical professional** (**Occupational Health Practitioner, General Medical Practitioner or Medical Specialist**) is to provide a recommendation regarding fitness to drive based on an assessment or review of the individual's medical condition(s) and functional status with respect to sensory– perceptual, cognitive, or psychomotor abilities identified as significant predictors of crash risk. The adjudicating professional should ensure that his/her qualifications and experience are in keeping with the decision being made. The recommendations should be made with due consideration of the facts and unique circumstances of each case.

The role of the **Occupational Therapist with experience and/or training in driving rehabilitation** is to provide comprehensive driving evaluations, clinical driving evaluations, driving mobility equipment evaluations, and intervention to develop or restore driving skills and abilities. The Occupational therapist without experience and/or training in driving rehabilitation is able to screen fitness to drive as an instrumental activity of daily living.

DRIVER CATEGORIES

Professional Driver Permits

Professional Driver Permits are required by drivers of the following (regulation 115, NRTA):

- a **goods vehicle**, the gross vehicle mass of which **exceeds 3 500 kilograms**;
- a **breakdown vehicle**;
- a **bus**;
- a **minibus**-
  - the gross vehicle mass of which exceeds 3 500 kilograms; or
  - which is designed or adapted for the conveyance of 12 or more persons, including the driver;
- a motor vehicle used for the **conveyance of persons for reward**;
- a goods vehicle carrying **dangerous goods** the gross vehicle mass of which **exceeds 3 500 kilograms** or a vehicle to which standard specification SABS 1398 “Road tank vehicles for petroleum-based flammable liquids” or standard specification SABS 1518: “Transportation of dangerous goods - design requirements for road tankers” apply; and
- a motor vehicle conveying **12 or more persons including the driver**.

Categories of professional driving permit (regulation 116, NRTA):

Professional driving permits are divided in the following categories:

Category “G”, which authorises the driving of a
- **goods vehicle**, the gross vehicle mass of which **exceeds 3 500 kilograms;**
- **breakdown vehicle**;

Category “P”, which authorises the driving of
- Those in Category “G”, plus
- a **bus**;
- a **minibus** (the gross vehicle mass of which **exceeds 3 500 kilograms**; or which is designed or adapted for the **conveyance of 12 or more persons**, including the driver)
- a motor vehicle used for the **conveyance of persons for reward**;
- a motor vehicle conveying **12 or more persons including the driver**.

Category “D”, which authorises the driving of
- Those in Category “G”, and “P”, plus
- a goods vehicle carrying **dangerous goods** the gross vehicle mass of which **exceeds 3 500 kilograms** or a vehicle to which standard specification SABS 1398 “Road tank vehicles for petroleum-based flammable liquids” or standard specification SABS 1518: “Transportation of dangerous goods - design requirements for road tankers” apply.

Professional Driver Permits are **NOT required** by drivers of the following (regulation 115, NRTA):

- a traffic officer or examiner of vehicles in the performance of his or her duties as contemplated in sections 31 and 32 of the Act, respectively;
- a person driving a hearse;
- a person driving a motor vehicle referred to in regulation 21(1)(a)(ii) or 21(1)(b) to (g);
  - trailers
  - farm machinery (threshing, harvesting, mowing, scraping, levelling, ploughing, etc.)
  - construction machinery (roadmaking, road-sweeping, earth moving, excavation, etc)
  - stock cars, vintage cars, fire-fighting vehicles
- a person driving a tractor.

SASOM Driver Categories

SASOM recognises 3 main categories:

Category 1: Drivers of light motor vehicles and motor bikes, no PrDP requirement

These are in standard transport circumstances where no special requirements exist over and above the required licence and personal skills to operate the vehicle.

Category 2: Drivers who require a PrDP

This is a higher risk category, but within this group there is a gradient of risk as follows:

- Category "**D**": highest risk - authorises the driving of a motor vehicles carrying hazardous/**d**angerous goods.
- Category "**P**": second highest risk - authorises the carrying of **p**assengers
- Category "**G**": third highest risk - authorises the driving of large motor vehicles conveying **g**oods.

Category 3: Special vehicle drivers in control of specialised vehicles

These are vehicles which are used for specific purposes where skill, method of operation and place of operation require attention, e.g. Forklift truck operators, crane drivers, etc.

Note that, unless these vehicles are driven on public roads, the legislation that usually governs fitness to drive is not the National Road Traffic Act, but the Construction Regulations and the National code of practice for the evaluation of training providers for lifting machine operators, as per the Driven Machinery regulations of the Occupational Health and Safety Act and the Mines Health and Safety Act. (See Legal references).

Whilst this guideline is not written specifically for train drivers, the standards are likely to be applicable to them in most instances. These employers are governed by the National Railway Safety Regulator Act (16 of 2002).

The provision of a certificate of fitness under one act does not automatically entitle the driver to operate the applicable mobile equipment in circumstances governed by another act; whilst similar requirements may apply, the authorised certifying practitioner may require different qualifications and/or registration.

The risks associated with drivers in this category can vary enormously, depending upon the circumstances, such as:

- The terrain
- The density of traffic (people and or equipment)
- The size of the equipment
- The material being worked

These enormous variances make it difficult to place minimum standards on this group. For some, the mix of circumstances demand minimum standards to be equal to the most stringent (e.g. PrDP cat D), whilst for others they would be far more tolerant.

Consequently, the minimum standards are to be considered on a case-by-case basis, in accordance with the mix of circumstances. As a guideline, the medical adjudicator should consider the category 1 standards as a minimum, although in MOST circumstances, the standards for category 2 would apply.

PART B: GENERAL APPROACH TO IMPLEMENTING A DRIVER FITNESS TESTING PROGRAM

GENERAL CRITERIA FOR FITNESS TO DRIVE

Note: The meaning of Fitness to Drive versus Driving Competency is covered under Definitions.

Medical conditions or impairments affecting fitness to drive may be categorised as follows:

Health related impairments categorised by the organ systems affected

Listed below are conditions that may require exclusion from driving, categorised by the type of impairment. Further details regarding specified conditions that may lead to these impairments are provided in the second part of this Guideline.

- Conditions that impact **sensory function**:
  - Disorders that impair operator's ability to identify or process external signals (vision, hearing).
  - Disorders that impair the ability to determine the position of the feet (position sense) (diabetes, chronic alcohol intake).
- Conditions that impact **cognitive function**
  - Disorders that cause sudden disorientation or impairment of consciousness (including uncontrolled diabetes, epilepsy, blackouts, disorders of cardio-respiratory function (such as uncontrolled hypertension, ischaemic heart disease, dysrhythmias and severe lung impairment)).
  - Disorders that impact thinking, judgement, insight, planning, visio-spatial perception, attention, concentration, memory, adaptive strategies, reaction time and executive motor function (including psychological, emotional and organic brain conditions, such as dementia – including HIV associated neurological deficit ("HAND"))
  - Disorders that may cause disabling giddiness or imbalance (vestibular disease, CNS disorders (including previous stroke)).
  - Disorders, circumstances or medications that impact mental alertness (contribute to drowsiness) sufficiently to compromise safety (including sleep disorders).
  - Excessive alcohol consumption or substance abuse.
- Conditions that impact **neuro-muscular-skeletal function**
  - Disorders of musculoskeletal system that may impair the ability to maintain control: - impaired use of limb(s), neuromuscular disease, joint dysfunction (including cervical spine), amputated limbs.
  - Disorders of coordination: - impaired cerebellar function.
- Additional functional requirements, where applicable
  - Disorders that impact the ability to deal with emergencies (e.g. first responders)
  - Disorders that impact the ability to work at heights
  - Crane operators have the additional requirement of climbing and working at heights
  - Disorders that impact the ability to perform heavy manual tasks (truck drivers are often required to load or manually move heavy objects)

Health related impairments categorised by their functional impacts:

- Fixed impairments
    - Examples include visual defects and musculoskeletal impairments (amputations, nerve injury, fixed arthritis)
    - These are assessed with a view to the degree to which they interfere with the above requirements for safe driving
- Conditions where there is a risk of a **sudden disabling event**
    - Examples include epilepsy, hypoglycaemia and arrhythmias
    - These are assessed in terms of the probability a recurrence when driving. For this, actuarial data based on the prognosis of others with a similar condition need to be used. The assessor can make a more precise estimate of individual risk if it is possible to stratify risk among those with a particular condition (e.g. severe head injury and the subsequent probability of a seizure).
- Conditions where there is fluctuating impairment over a long period
    - Examples include substance abuse, multiple sclerosis and conditions in which fatigue is a factor
    - Here part of the assessment includes the degree of insight (self-awareness, awareness of the illness) of the driver, proof of willingness to "self-regulate", and the presence of risky behavioural traits that underlie the condition. By "self-regulate" is meant that the driver has good recognition of the fluctuations, and can take valid decisions on driving, providing there is a pattern of activity that allows for driving to be stopped timeously when the impairment increases.
- Conditions where there is progressive impairment over a long period
    - Examples include dementia and motor neurone disease
    - Follow-up assessments may need to be done more frequently, until a point is reached when the condition is not conducive to safe driving.
- Conditions where there is a short-term impairment
    - Examples include post-surgery or injury, the use of a short course of an impairing medication.
    - The assessment is dependent on the condition, and performance of other people with a similar condition – but individual feedback from the affected person will affect the duration of the restriction from driving.

Age limit

There is no age limit to a licence in South Africa. The only reference to age and licensing is the age at which a learner's licence is acquired. Those who apply for a learner's licence who are over the age of 65 require a medical certificate of fitness signed by a doctor.

DRIVER CERTIFICATION AND OUTCOMES MANAGEMENT

See SASOM guidance note on minimum requirements of a certificate of fitness.

At the end of the examination, the medical examiner will provide a certificate of fitness for the driver that will make clear whether the driver is:

- Fit to drive with no conditions or restrictions
- Fit to drive under certain **conditions** (no workplace accommodation required)
  - e.g. Can do the job but requires more regular medical review (i.e. controlled hypertension) or must wear glasses whilst driving.
- Fit to drive with certain **restrictions** (workplace accommodation is required)
  - Can do the job, with task/place restrictions. (e.g. task related restriction could be that the restriction applies to long-distances only; place related restrictions may apply to driving on company property only, and not on the open road.)
- Unfit to drive
  - Simply cannot do the job (i.e., too ill or disabled to accomplish the task)
  - Can physically do the job but is a danger to others. (i.e., even though he/she can physically drive, his/her impairment is such that it places others at unacceptable risk)
- The DURATION of the restrictions or "unfitness' should be stated (i.e., permanent or temporary)

Considerations for cases found to be "Fit with restrictions" or "unfit"

Once the examining practitioner has determined that the **impairment** has led to a conclusion of "unfit" or even "fit with restrictions", this means that the driver has an **incapacity**, which should be managed as prescribed by South African Law (Employment Equity Act & Labour Relations Act) and Codes of Good Practice.

The responsible manager will consider the duration and extent of the impairment, to determine the possibilities for: (temporary/permanent)

- Accommodation in own job
- Re-deployment (with or without re-training)
- The need to access employee benefits / entitlements (per available incapacity / disability provisions made by the company)

All reasonable attempts should be made to enable the employee to recover and return to some form of work. The first objective is to apply whatever medical treatment options are available to restore normal (or optimal) function. Should this not be possible, the employer should attempt to find other suitable work for the affected employee in the company. Should no suitable accommodation or alternative work be found after appropriate effort, the employer may consider termination of employment on the grounds of ill health – incapacity.

Duties placed on all parties, in dealing with outcomes of the medical

Applicants and licence holders have the following legal duties:

- Notify the Provincial MEC of any injury or illness that would likely have an impact on safe driving ability (except short-term conditions, and other conditions as set out in Part C of this guide). For those who are already in possession of a driver's licence, this notification should be within 21 days of becoming aware of the impairment (i.e. declared unfit to drive, or drive with adaptations). (Section 16(2) of the NRTA)
- Where the impact of an impairment is still evolving (i.e., improvements are still taking place), the21 days' count-down begins after reaching optimum recovery, and where maximum medical improvement leaves residual relevant impairment.
- Respond fully and accurately to any requests for information from either the Provincial MEC or healthcare professionals

- Comply with the requirements of the issued licence as indicated by the Provincial MEC.

They should also adhere, with ongoing consideration of fitness to drive, to prescribed medical treatment, and to monitor and manage the condition and any adaptations.

Doctors and other healthcare professionals should:

- advise the individual on the impact of their medical condition for safe driving ability
- advise the individual on their legal requirement to notify the Provincial MEC of any relevant condition
- treat, manage and monitor the individual's condition with ongoing consideration of their fitness to drive

Circumstances may arise in which a person cannot or will not notify the Provincial MEC. It may be necessary for a doctor, optometrist or other healthcare professional to consider notifying the Provincial MEC under such circumstances if there is concern for road safety, which would be for both the individual and the wider public. Of course, this may pose a challenge to issues of consent and the relationship between patient and healthcare professional.

The HPCSA offers guidance about notifying in the public interest when the person cannot or will not exercise their own legal duty to do so. (Booklet 10, "Confidentiality"; section 8.2.4 (Disclosures in the public interest))

MEC NOTIFICATION BY DRIVERS OR HEALTH PROFESSIONALS

Note:

- See Annexure on legislation requirements regarding notification of the MEC.
- Notification of MEC is referred to frequently in Section C of this document. This is a recommendation, not an absolute instruction. In every case, the professional involved in adjudicating fitness should apply due consideration as to whether notification should take place.

To notify the MEC of a disqualifying impairment requiring cancellation of a license, or for one which requires an endorsement or restriction, or to apply for re-instatement of a licence, the license holder simply notifies the Manager at any Driver License Testing Centre (DLTC). It is advisable that the notification/application be supported by:

- a letter from the doctor reporting the diagnosis along with recommendations regarding the persons' fitness to drive and whether any adaptations are required to the vehicle. This letter must provide the MEC with enough medical information to guide their decision as to whether the individual may continue driving, needs to be re-tested or must have their licence suspended.
- In some circumstances an affidavit may be requested from the licence holder stating their reasons for requesting a re-test.
- ID book and current licence.

INDICATIONS FOR REFERRAL TO AN OCCUPATIONAL THERAPIST

Note: driver assessments should be conducted by Occupational Therapists with experience and/or training in driving rehabilitation. Reasons for referral include:

Cases where a clinical medical assessment cannot determine, fitness to drive without a functional driving assessment, or if the medical practitioner has doubts about the driving ability or driver fitness. These may include health related impairments as per the functional impairments listed above, as well as:

- Physical impairments or handicaps (amputations, limbs with impaired mobility)
- Mental / cognitive impairments (dementia, stroke, and related)

Cases where adaptations are required to either the driving style, the vehicle or both; and where such adaptations need to be assessed for fitness to drive.

INDICATIONS FOR REFERRAL TO A NEUROPSYCHOLOGIST

Cases with mental / cognitive impairments where there may be additional or more complex psychopathology affecting behaviour.

Legal considerations for fairness in determining fitness to drive

Whilst the OH&SA and NRTA place a duty on the employer to ensure drivers are appropriately certified, the Employment Equity Act prohibits unfair discrimination regarding access to work. This places a duty on the employer (and by inference, the health professional) to ensure that employment practice linked to medical testing is fair. This highlights the importance of setting minimum fitness standards based upon:

- The inherent requirements of the job
- The risks associated with the job

The EEA's "*Code of Good Practice on the integration of employment equity into human resource policies and practices*" (section 10) specifies: (quotes taken directly from the COGP)

"*10.3.2. An employer should ensure that assessments used are valid, reliable and fair, so that no group or individual is unfairly disadvantaged as a result of the assessment. Bias in the application of the assessment should be eliminated. The test should match the job in question and should measure the minimum level of the competencies required to perform the job, which must be* ***based on the inherent requirements or essential functions of the relevant job****. Tests should avoid arbitrary or irrelevant questions. Only assessments that have been professionally validated as reliable predictors of performance for a particular job, irrespective of race, gender or disability, should be used.*

10.3.3. Administrators and users of medical, psychological and other similar assessments should be ***qualified and registered*** *with the appropriate recognised professional body of South Africa. Assessors should be* ***trained to understand, evaluate and interpret the evidence or outcomes*** *of the assessment objectively against the skills and abilities required for the job and must be able to justify their decisions. The assessment process should also minimise the opportunity for assessors to make subjective or arbitrary judgments that could, deliberately or inadvertently, work to the advantage of one group over another. Assessors should make sure they assess against the competencies for the job.*"

Who may certify?

A medical **certificate of fitness** is legally required for drivers under the following laws:

Law requiring certification	Who may certify
In terms of the National Road Traffic Act (public roads)	
• People **over the age of 65** who apply for a learner's licence (section 103) • Those who apply to be a **driver instructor** (section 114A) • Those who apply for a **professional driving permit (PrDP)** (section 117 & 118)	• Medical practitioners • Occupational Health Practitioners, (note - this OHN is not exactly the same as the usual definition in the OH&SA)
In terms of the Occupational Health and Safety Act	
• The Construction Regulations	Occupational Health Practitioners
• Driven Machinery Regulations; The National code of practice for the evaluation of training providers for lifting machine operators	Not specified, therefore medical practitioner or occupational health practitioner

SETTING COMPANY POLICY

A driver fitness policy (or similar standard) for drivers should, in consultation with a subject matter expert such as an Occupational Medicine Practitioner, be drawn up by management. This would address the following:

- A general statement that it is the employer's duty to ensure that all reasonable measures will be taken to ensure the safety of employees and, where applicable, the public. The employer delegates a component of this duty of care to the health practitioners responsible for conducting the medical tests.
- The employer is, in terms of the National Road Traffic Act, Act 93 of 1996, required to categorise all drivers according to the vehicle they drive, and whether they require a Professional Driving Permit (PRDP). A similar requirement is required by the OH&SA's Construction Regulations and the OH&SA's Driven Machinery Regulations (via the National code of practice for the evaluation of training providers for lifting machine operators) (See SASOM categories of drivers)
- Drivers should be appointed on the basis that their employment, and continued employment, is subject to meeting the medical requirements for drivers of their category.
- Drivers must be informed of the health risks involved in the job and must be trained accordingly.
- Health practitioners conducting the medical tests should follow a written protocol or code of practice regarding the test selection, standards to be met, and the management of drivers who are not fit to continue with their jobs due to health reasons, either temporarily or permanently, including the suspension of work until cleared on the grounds of a health evaluation report.
- The employer must ensure that drivers undergo periodic health evaluations as required. Whilst this is not legally prescribed, SASOM recommends that these should take place at the employer's expense.
- The employer must provide the examining health professional with the necessary information on the driver's category, special skills required and any known risk factors as per request form.

It is recommended that all drivers in Category 2 be in possession of a valid certificate in First Aid, recognised by the Department of Labour, and that a First Aid box with at least the minimum contents detailed in the General Safety Regulations of the Occupational Health and Safety Act (Act 85 of 1993)) be available in the cab.

STRUCTURE OF A DRIVER TESTING PROGRAMME

The following tests and frequency should be considered when formulating a driver testing program. See Annexure 1 for suggested "routine" minimum medical standards.

Test Selection

- Interview:
  - Seek out chronic disorders as listed in the section "Criteria for Fitness to Drive". Record date of diagnosis, medication and any hospitalisation or complications.
  - Screen for signs of fatigue, and risk factors for becoming fatigued.
- Examination: (areas of particular interest)
  - Sensory functions (vision, hearing & proprioception)
  - Neuro-musculoskeletal (mobility, coordination, motor control)
  - CNS (clarity of thought), including:
    - Chronic or relapsing disorders that may impair cognitive or executive motor function (cardiovascular, endocrine, neurological, infection (notably HIV), substances)
    - Risk of sleep apnoea (with daytime somnolence)
- Special tests:
  - Vision tests (NB: refer to the SASOM vision standard)
    - Mandatory: **Visual Acuity** (far & near); **peripheral vision**; **colour** (primary colours).
    - As applicable to the setting, and within the guidelines of the Vision Standard: depth perception, "night" vision.
  - Additional tests where clinically indicated:
    - Diabetics should all have a random blood glucose and HBA1c.
    - Cardiac issues may require an ECG (e.g. Abnormal dysrhythmia, severe hypertension, ischaemic heart disease).
  - Tests for substance abuse: (should be used in tandem with a substance abuse policy)
    - alcohol (blood **GGT**; if elevated and alcohol suspected, proceed to **CDT**)
    - drugs of abuse, including:
      - Minimum **core 5-panel**: **cannabis**, **opiates** (includes codeine, morphine, heroin), **amphetamines** (includes methamphetamines ("TIK") & methcathinone (CAT)), **cocaine**, **benzodiazepines**.
      - Also consider: **MDMA** ("Ecstasy")

    Note: Mandrax (methaqualone) is not screened for, because it is always used in combination with cannabis, so users will be identified through a positive THC test.
  - Where there is exposure to hazards, appropriate surveillance testing must be included: e.g. audiometry, spirometry, FBC (chemicals), AST, ALT (chemicals).

General Overview

At Pre-placement	At Periodic Assessments	At Exit
• Interview, clinical exam (see above) • Vision tests (as above) • Fatigue questionnaires • GGT (CDT if indicated) • Urine for substance abuse (see above) • Surveillance tests, as indicated by job exposures (audio, PFT, FBC) – as baselines. • If indicated by clinical findings: (PFT, ECG).	• As for pre-placement • Surveillance tests, as indicated by job exposures (audio, PFT, FBC). **Test Frequency** • Standard interval is annual but may be sooner if indicated. For healthy drivers <45 years old, every 2 years) • PrDP maximum legal interval is 24mnths • Surveillance intervals as indicated by the appropriate legislation	• Interview, brief clinical exam • Surveillance tests, as indicated by job exposures (audio, PFT, FBC).

General points:

1. It is important that written informed consent must be obtained. See the SASOM standard for informed consent.
2. When a driver is examined for the first time by a health professional more time should be allocated to history taking and the gathering of relevant information.
3. The health professional performing the evaluation must have discretion in each case to include or exclude any of the actions prescribed in the protocol.
4. Where an established on-site occupational health service is not in operation, it is advisable to make use of the same health professional/practice to maintain continuity.
5. Ensure the levels of competency of the health professionals involved in the testing are appropriate to the risks, and that the registration of the certifying professional is compliant with the legal requirement.
6. It is recommended that a “return to work evaluation” be conducted after significant ill health absence (e.g. >10 days), especially for category 2 & 3 drivers.

Acronyms used above:

Acronym	Complete Term	Brief description
GGT	Gamma Glutamyl Transpeptidase	A liver enzyme that is elevated in when certain hepatic metabolic processes are stimulated, such as in cases of long-term excessive alcohol consumption. However, it is elevated in a variety of circumstances, so should only be used as a screening tool; further testing should be done (e.g. CDT), to confirm a link with alcohol consumption.
CDT	Carbohydrate-Deficient Transferrin	A serum protein that is elevated in excessive alcohol consumption. Also, may be elevated in the following circumstances: • Rare genetic variants of transferrin (<1%) • Rare inborn error of glycoprotein metabolism • Severe hepatic insufficiency • Pregnancy (especially after the first 10 weeks of pregnancy) It has been established that occasional 'binge' drinking does not increase serum CDT levels. Regular heavy drinking is required to elevate levels significantly. Sensitivity of the test for males is then 93% and the specificity 98%. For females, sensitivity is 81% and the specificity remains at 98%.
HBA_1c	Glycated (glycosylated) haemoglobin	A form of haemoglobin that represents the average plasma glucose levels for the preceding 3 months.
FBC	Full Blood Count	A laboratory test in which a variety of haematological parameters are measured including: • red corpuscle parameters (including haemoglobin levels) • white blood cells • platelets
AST	Aspartate aminotransferase	An enzyme found in the heart, skeletal muscle, brain, kidney, liver. May be elevated in myocardial infarction, heart failure, myocarditis, pericarditis, myositis, muscular dystrophy, trauma, hepatic disease, pancreatitis, renal infarct, eclampsia, neoplasias, cerebral damage, seizures, haemolysis, ethanol.
ALT	Alanine aminotransferase	An enzyme specific to liver. May be elevated in hepatitis, cirrhosis, liver metastases, obstructive jaundice, infectious mononucleosis, hepatic congestion, pancreatitis, renal disease, ethanol ingestion. Alcohol-related liver injury, where the AST: ALT ratio frequently is > 2.
PFT	Pulmonary Function Test	A test of the lungs' ventilation capability by means of spirometry.

REFERENCES

Legal References:

1. National Road Traffic Act (93 of 1996) (NRTA) and its General Regulations (2000)
2. The following regulations of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
   - The Construction Regulations Feb 2014; (21)(1)(d)(ii) (construction vehicles and/or mobile plants)
   - The Driven Machinery Regulations, June 2015; (The National code of practice for the evaluation of training providers for lifting machine operators (operators of forklifts and other plant-based driven machinery)) (9.2(b)).
3. Employment Equity Act (55 OF 1998)
4. The Labour Relations Act (66of1995), Schedule 8.
5. Assessing fitness to drive - a guide for medical professionals (May 2016). Driver & Vehicle Licensing Agency (DVLA), UK.

Cross References:

SASOM Guidelines

1. Guideline on vision testing
2. Guideline on the management of incapacity &disability
3. Guideline on testing for drugs and alcohol.
4. Guidance note on minimum requirements for a certificate of fitness.

Other References:

1. Fitness to Drive: a guide for health professionals. Tim Carter. The Royal Society of Medicine Press. 2006.
2. Fitness for Work: The Medical Aspects. R Cox, F Edwards, R McCallum. Oxford Medical Publications
3. Transportation Research Circular E-C211. “Taxonomy and Terms for Stakeholders in Senior Mobility.” Transportation Research Board. Washington, DC, July 2016.
4. U.S. Department of Transportation. Federal Motor Carrier Safety Administration (FMCSA) Medical Examiner Handbook. Available at http://nrcme.fmcsa.dot.gov/mehandbook/MEhandbook.aspx.
5. Determining Driver Fitness in Canada. Available at http://ccmta.ca/images/publications/pdf/Determining-Driver-Fitness-In-Canada-Final.pdf
6. Determining Driver Fitness in Australia. Available at http://www.austroads.com.au/drivers-vehicles/assessing-fitness-to-drive/for-health-professionals

PART C: SPECIFIED MEDICAL CONDITIONS RELATING TO FITNESS TO DRIVE

CHAPTER 1: NEUROLOGICAL DISORDERS

EPILEPSY

Epileptic seizures are the most common medical cause of collapse whilst driving.

When referring to the table on epilepsy below, also refer to the section following, on issues related to epilepsy that require special consideration, including the “Epilepsy Guidelines”)

The following definitions apply:

- epilepsy encompasses all seizure types, including major, minor and auras
- if within a 24-hour period more than one epileptic event occurs, these are treated as a single event for the purpose of applying the epilepsy guidelines.

The following features, in both Group 1 car and motorcycle and Group 2 bus and lorry drivers, are considered to indicate a **good prognosis** for a person under care for a first unprovoked or isolated epileptic seizure:

- no relevant structural abnormalities on brain imaging
- no definite epileptiform activity on EEG
- support of a neurologist
- annual risk of seizure considered to be 2% or lower for bus and lorry drivers.

NEUROLOGICAL DISORDERS - EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Epilepsy or multiple unprovoked seizures	**Must not drive** and must notify the MEC. Provided the licence holder or applicant satisfies the epilepsy guidelines, a review licence will usually be issued.	**Must not drive** and must notify the MEC. The person with epilepsy must remain seizure-free for **10 years** (**without epilepsy medication**) before licensing may be considered.
First unprovoked epileptic seizure / isolated seizure	**Must not drive** and must notify the MEC. Driving will be prohibited for **6 months** from the date of the seizure. Clinical factors that indicate that there may be an increased risk of seizures require the MEC not to consider licensing until after 12 months from the date of the first seizure.	**Must not drive** and must notify the MEC. Driving will be prohibited for **5 years** from the date of the seizure. If, after 5 years, a neurologist has made a recent assessment and clinical factors or investigation results (for example, EEG or brain scan) indicate no annual risk greater than 2% of a further seizure, the licence may be restored. Such licensing also requires that there **has been no need for epilepsy medication throughout the 5 years** up to the date of the licence being restored. If the prospective annual risk of further seizure is greater than 2%, the epilepsy guideline may apply.
Secondary causes of seizure	**Must not drive** and must notify the MEC. In all cases of an epilepsy diagnosis, the epilepsy guidelines apply to Group 1 car and motorcycle drivers. This includes all cases of single seizure in which a primary cerebral cause is present and the likelihood of recurrence cannot be excluded. When seizures have occurred at the time of an acute head injury or intracranial surgery these may be excepted from the epilepsy guidelines. When seizures have occurred at the time of an intracranial venous thrombosis there must be 6 months without seizure before driving may resume.	**Must not drive** and must notify the MEC. In all cases in which a 'liability to epileptic seizure' – either primary or secondary – has been diagnosed, the specific epilepsy guidelines apply for Group 2 bus and lorry drivers. The only possible exception is a seizure that occurred immediately at the time of an acute head injury or intracranial surgery, not some time after, and/or 'no liability to seizure' has been demonstrated. If there is an annual risk of seizure following head injury or intracranial surgery, it must have fallen to 2% or lower before the MEC may license bus or lorry driving.

NEUROLOGICAL DISORDERS - EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Withdrawal of epilepsy medication	See the "special considerations" below.	See the "special considerations" below.
Provoked seizures (except related to use of alcohol or illicit drugs)	See the "special considerations" below.	See the "special considerations" below.
Dissociative seizures	**Must not drive** and must notify the MEC. Licensing may be considered once episodes have been satisfactorily controlled for 3 months and there are no relevant mental health issues. If there are high risk features, 6 months may be required with a specialist opinion.	**Must not drive** and must notify the MEC. Licensing may be considered once episodes have been satisfactorily controlled for 3 months and there are no relevant mental health issues. If there are high risk features, 6 months may be required with a specialist opinion.
Seizure following an epilepsy-free period (i.e. a relapse of seizures)	**Must not drive** and must notify the MEC. The epilepsy guidelines apply.	**Must not drive** and must notify the MEC. The epilepsy guidelines apply.
Two unprovoked seizures more than 5 years apart	The epilepsy guidelines apply	The epilepsy guidelines apply
Lesional epilepsy	In cases of a seizure due to a structural lesion, the epilepsy guidelines apply.	In cases of a seizure due to a structural lesion, the epilepsy guidelines apply.

SPECIAL CONSIDERATIONS FOR EPILEPSY

GROUP 1: Cars, LMV's Motorcycles

The National Road Traffic Act (93 of 1996) Chapter IV section 15(1) prescribes uncontrolled epilepsy as a disqualifier for obtaining a licence to drive on the public roads.
The following special considerations apply under the epilepsy guidelines for drivers of cars and motorcycles:

1. The person with epilepsy may qualify for a driving licence if they have been free from any seizure for **1 year**. This needs to include being free of minor seizures and epilepsy signs such as limb jerking, auras and absences. Episodes not involving a loss of consciousness are included.
2. The person who has had a seizure while asleep must stop driving for 1 year from the date of the seizure unless points 3 or 5 apply.
3. Relicensing may be granted if the person, over the course of at least 1 year from the date of the first **sleep seizure**, establishes a history or pattern of seizures occurring **only ever while asleep**.
4. If a pattern of seizures is established for 1 year in which there is no influence on the level of consciousness and no influence on the ability to act, a continued licence may be allowed, provided the person also shows no history of any other type of unprovoked seizure.
5. If a pattern of 3 years of purely asleep seizures after a period of awake or awake and asleep can be demonstrated, a licence can be issued.

Overriding all the above considerations is that the licence holder or applicant with epilepsy must not be regarded as a likely source of danger to the public while driving and that they are compliant with their treatment and follow up.
If the licensed driver has any epileptic seizure, they must stop driving immediately unless considerations 2, 3 or 4 can be met, and the driver must notify the MEC.
If a licence is issued under consideration 3 or 4 and the driver has a different type of seizure, they lose the concession, must stop driving, and must notify the MEC.

Isolated seizures

The person who has a first unprovoked epileptic seizure (isolated seizure) will usually qualify for a driving licence if they are free from any further seizure for **6 months**. This is provided there are no other clinical factors or results of investigations that may increase the risk of a further seizure, in which case 12 months is required before driving may be relicensed.

Withdrawal of epilepsy medication (see note below)

Individuals should not drive whilst anti-epilepsy medication is being withdrawn and for **6 months after the last dose**. If a seizure occurs as a result of a physician-directed reduction or change in epilepsy medication, the epilepsy guidelines state that a licence should be revoked for 12 months. Relicensing may be considered earlier than this if treatment has been reinstated for 6 months, provided there was no further seizure in the 6 months after restarting the prescription.

GROUP 2: Trucks, Passenger Vehicles

Drivers of buses and lorries must satisfy all the following conditions. They must:

- have been free of epileptic seizures for the last **10 years**
- **not have taken any epilepsy medication** during these 10 years (there are thus no special considerations for withdrawal)
- have no continuing liability to epileptic seizures
- not be a source of danger whilst driving.

Isolated seizure

Drivers of buses and lorries must satisfy all the following conditions in relation to an isolated seizure. They must:

- have been free of epileptic attacks for the last **5 years**
- **not have taken any epilepsy medication** during these 5 years
- have undergone a recent assessment by a neurologist
- have received satisfactory results from investigations.

This risk prediction of 2% and 20% likelihood of a seizure is drawn from the following research:

1. Sander, J.W.A.S. and Shorvon, S.D. (1987). Incidence and prevalence studies in epilepsy and their methodological problems: a review. J. Neurol. Neurosurg. Psychiatry., 50., 829-39.
2. Medical Research Council Anti-Epileptic Drug Withdrawal Study Group. Prognostic index of the recurrence of seizures after remission of epilepsy. BMJ 1993; 306: 1374-1378.
3. Medical Research Council Anti-Epileptic Drug Withdrawal Study Group. Randomised study of anti-epileptic drug withdrawal in patients in remission. Lancet 1991; 337: 1175-1180
4. Epilepsy & driving in Europe. Report of the Medical Working Group, EU Driver Licensing Committee, 2005.
5. Dobbs, BM. Medical conditions and driving: A review of the Literature 1960-2000. DOT HS 809 690. Washington, DC: National Highway Transportation Safety Administration, 2005. www.nhtsa.dot.gov/people/injury/
6. Jennet B. Epilepsy and neurological disorders. In: Taylor, J Ed. “Medical aspects of fitness to driver. 5th Ed. Medical Commission on Accident Prevention, 1995: 78-82.

These figures, while originally defined by older studies, have since been revalidated by more recent risk-of-harm calculations. (extract from DVLA guideline, May 2016)

GUIDANCE FOR WITHDRAWAL OF ANTI-EPILEPSY MEDICATION BEING WITHDRAWN ON SPECIFIC MEDICAL ADVICE

(N.B. This advice only relates to treatment for epilepsy)

During the therapeutic procedure of epilepsy medication being withdrawn by a medical practitioner, the risk of further epileptic seizures should be noted from a medico legal point of view.

If an epileptic seizure does occur, the patient will need to satisfy driving licence regulations before resuming driving and will need to be counselled accordingly.

It is clearly recognised that withdrawal of epilepsy medication is associated with a risk of seizure recurrence. A number of studies have shown this, including a randomised study of withdrawal in patients in remission conducted by the Medical Research Council's study group on epilepsy drug withdrawal. This study showed a 40% increased risk of seizure associated with the first year of withdrawal compared with continued treatment.

Patients should be warned of the risk they run, both of losing their driving licence and of having a seizure that could result in a road traffic accident.

Drivers should usually be advised not to drive from the start of the withdrawal period and for 6 months after treatment cessation – a person remains as much at risk of seizure during the withdrawal as during the following 6 months.

This advice may not be appropriate in every case, however. One specific example is withdrawal of anticonvulsant medication when there is a well-established history of **seizures only while asleep**. In such cases, any restriction on driving is best determined by the physicians concerned, after considering the history. It is the patient's legal duty to comply with medical advice on driving.

For changes of medication, for example due to side effect profiles, the following general advice is applicable:

- When changing from one medication to another and both would be reasonably expected to be equally efficacious, then no period of time off driving is recommended.
- When the new medication is felt to be less efficacious than the previous medication, the 6 months off driving period is recommended. This time period would start from the end of the change-over period.

Provoked seizures:

For Group 1 car motorcycle, and possibly Group 2 bus and lorry categories, provoked or acute symptomatic seizures may be dealt with on an individual basis if there is no previous unprovoked seizure history.

In the absence of any previous seizure history or previous cerebral pathology, the following seizures may also be treated as **provoked**:

- eclamptic seizures
- reflex anoxic seizures
- seizure in the first week following a head injury
- at the time of a stroke or TIA, or within the ensuing 24 hours
- during intracranial surgery or the ensuing 24 hours
- associated with severe electrolyte disturbance.

Unprovoked seizures associated with alcohol or drug misuse, sleep deprivation or a structural abnormality are not considered provoked for licensing purposes. Similarly, reports of seizure as a side-effect of prescribed medication do not automatically imply that such events will be considered as provoked. These would normally, in the absence of a previous unprovoked seizure, require 6 months off driving for Group 1 driving and 5 years for Group 2 licensing. Multiple medication induced seizures would not normally be classified as epilepsy for the purposes of driver licensing.

For seizure with alcohol or illicit drugs, see the chapter on substance abuse.

Doctors may wish to advise patients that the likely total period of time they will be required not to drive will be influenced by, among other things:

- whether it is clear that the seizure has been provoked by a stimulus that does not convey any risk of recurrence and does not represent an unmasking of an underlying liability, and
- whether the stimulus has been appropriately managed or is unlikely to occur at the wheel.

"THE EPILEPSY GUIDELINES"

Important notes:

1. These guidelines are adapted for South Africa from the regulations of the UK Traffic Act 1998.
2. South Africa's NRTA does not categorise licences according to Groups 1 & 2, as outline below. However, these categories are retained for the purposes of this guideline, as they align with the overall document.

GROUP 1: Car and motorcycle

1. Uncontrolled epilepsy is prescribed for the purposes of section 15(1) of the **National Road Traffic Act (93 of 1996) Chapter IV Sections 15** as a relevant impairment in relation to an applicant for, or a holder of, a driver's licence.

2. Epilepsy should be considered in relation to an applicant for a licence who satisfies the conditions set out in paragraph (6) below and who has either:
    a. been free from any unprovoked seizure during the period of **1 year** immediately preceding the date when the licence is granted, or
    b. during that **1-year** period has suffered no unprovoked seizure other than a permitted seizure (see below).

3. A **permitted seizure** for the purposes of paragraph 2b is a seizure (which can include a medication-adjustment seizure) falling within only one of the:
    a. permitted patterns of seizure (see below), or
    b. a medication-adjustment seizure, where:
        i. that medication-adjustment seizure does not fall within a permitted pattern of seizure
        ii. previously effective medication has been reinstated for at least 6 months immediately preceding the date when the licence is granted
        iii. that seizure occurred more than 6 months before the date when the licence is granted, and
        iv. there have been no other unprovoked seizures since that seizure, or
    c. a seizure occurring before a medication-adjustment seizure permitted under sub-paragraph (b) immediately above, where:
        i. that earlier seizure has, to that point, formed part of only one permitted pattern of seizure and has occurred prior to any medication-adjustment seizure not falling within the same permitted pattern, or
        ii. it is a medication-adjustment seizure, which was not followed by any other type of unprovoked seizure, except for another medication-adjustment seizure.

4. A **permitted pattern of seizure** for the purposes of paragraph (3) is a pattern of seizures:
    a. occurring during sleep, where:
        i. there has been a seizure while asleep more than 1 year before the date when the licence is granted
        ii. there have been seizures only while asleep between the date of that seizure while asleep and the date the licence is granted
        and
        iii. there has never been an unprovoked seizure while awake

    or
    b. occurring during sleep, where:
        i. there has been a seizure while asleep more than 3 years before the date when the licence is granted;
        ii. there have been seizures only while asleep between the date of that seizure while asleep and the date the licence is granted

and

iii. there is also a history of unprovoked seizure while awake, the last of which occurred more than 3 years before the date when the licence is granted

or

c. without influence on consciousness or the ability to act, where:
   i. such a seizure has occurred more than 1 year before the date when the licence is granted
   ii. here have only been such seizures between the date of that seizure and the date when the licence is granted

   and

   iii. there has never been any other type of unprovoked seizure.

5. An **isolated seizure** should be considered a relevant impairment for the purposes of section 15(1) of the **National Road Traffic Act (93 of 1996) Chapter IV Sections 15,** in relation to an applicant for, or a holder of, a driver's licence:
   a. in a case where there is an underlying causative factor that may increase future risk, where such a seizure has occurred during the previous 1-year period

   and

   b. in any other case, where such a seizure has occurred during the previous 6-month period.

6. The conditions mentioned immediately above are that:
   a. so far as is predictable, the applicant complies with the directions regarding treatment for epilepsy or isolated seizure, including directions as to regular medical check-ups made as part of that treatment, which may from time to time be given by a registered medical practitioner or one of the clinical team working under the supervision of that registered medical practitioner
   b. if required to do so by the MEC, the applicant has provided a signed declaration agreeing to observe the condition in sub-paragraph a) immediately above
   c. if required by the MEC, there has been an appropriate medical assessment by a registered medical practitioner

   and

   d. the MEC is satisfied that the driving of a vehicle by the applicant in accordance with the licence is not likely to be a source of danger to the public.

GROUP 2: Bus and lorry

7. As for the above, uncontrolled epilepsy is prescribed for the purposes of section 15(1) of the **National Road Traffic Act (93 of 1996) Chapter IV Sections 15** as a relevant impairment in relation to an applicant for, or a holder of, a driver's licence. With this background, epilepsy should be considered in relation to an applicant for a group 2 licence who:
   a. in the case of a person whose last epileptic seizure was an isolated seizure satisfies the conditions in paragraphs (8) and (9) below

   or

   b. in any other case, satisfies the conditions set out in paragraph (9) and who, for a period of at least 10 years immediately preceding the date when the licence is granted has:
      i. been free from any epileptic seizure

      and

      ii. has not been prescribed any medication to treat epilepsy.

8. An **isolated seizure** should be considered a relevant impairment in relation to an applicant for a Group 2 licence who satisfies the conditions set out in paragraph (9) and who, for a period of at least 5 years immediately preceding the date when the licence is granted:
   a. has been free from any unprovoked seizure

and

b. has not been prescribed medication to treat epilepsy or a seizure.

9. The conditions mentioned immediately above are that:
    a. if required by the MEC, there has been an appropriate medical assessment by a neurologist **and**
    b. the MEC is satisfied that the driving of a vehicle by the applicant, in accordance with the licence, is not likely to be a source of danger to the public.

TRANSIENT LOSS OF CONSCIOUSNESS (TLOC) ("BLACKOUTS") – OR LOST/ALTERED AWARENESS

Overview

Road traffic collisions resulting from blackouts are two or three times more common than those resulting from seizures.
Recurrent TLoC (more than one isolated event), not including syncope, is **uncommon** – and always requires detailed medical assessment.

There are several causes of transient loss of consciousness:

- Syncope => see pages on syncope in this section
- Seizure/epilepsy => see pages on epilepsy in this section
- Hypoglycaemia => see section on diabetes mellitus
- Drug/alcohol => see section on drug/alcohol misuse or dependence
- Sleep disorders => see section called "Miscellaneous", on excessive sleepiness
- Undetermined => see this subheading in the section on "syncope"
- Medication => see section called "Miscellaneous", on medication effects.

In relation to TLoC, three features are of note to medical practitioners: provocation, posture, prodrome.

With concern for **road safety**, however, the two most important features are:

- prodrome – are there warning signs sufficient in both nature and duration?
- posture – do the episodes of TLoC occur while sitting?

A prodrome must allow time for a driver to find a safe place to stop before losing consciousness. A prodrome is reliable if the signs are clear, consistent across all events and provide sufficient duration to find a safe stop, or unreliable if these are absent.

Licence holders or applicants should be informed that they must notify the MEC when TLoC occurs while sitting.

For syncope occurring while standing or sitting, the following factors indicate high risk:

- abnormal ECG
- clinical evidence of structural heart disease.
- Further investigations such as 48-hour ambulatory ECG, echocardiography and exercise testing may be indicated after specialist opinion has been sought.

TRANSIENT LOSS OF CONSCIOUSNESS (TLoC) ('BLACKOUTS') – or lost/altered awareness

Transient loss of consciousness – solitary episode

	GROUP 1: Cars, LMV's Motorcycles	GROUP 2(3): Trucks, Passenger, Special.
Typical vasovagal syncope with reliable prodrome		
While standing	No driving restrictions. MEC need not be notified.	No driving restrictions MEC need not be notified
While sitting	No driving for 1 month. MEC need not be notified.	No driving for 3 months. MEC need not be notified
Syncope with avoidable trigger or reversible cause (for cough syncope see later).		
While standing	No driving restrictions. MEC need not be notified.	No driving restrictions. MEC need not be notified.
Whilst sitting	**Must not drive** for 4 weeks. Driving may resume after 4 weeks only if the cause has been identified and treated. Must notify the MEC if the cause has not been identified and treated.	**Must not drive** for 3 months. Driving may resume after 3 months only if the cause has been identified and treated. Must notify the MEC if the cause has not been identified and treated.
Unexplained syncope, including syncope without reliable prodrome This diagnosis may apply only after appropriate neurological and/or cardiological opinion and investigations have detected no abnormality.		
Whilst standing or sitting	**Must not drive** and must notify the MEC. If no cause has been identified, the licence should be refused or revoked for 6 months.	**Must not drive** and must notify the MEC. If no cause has been identified, the licence will be refused or revoked for 12 months.
Cardiovascular, excluding typical syncope		
Whilst standing or sitting	**Must not drive** and must notify the MEC. Driving may be allowed to resume after 4 weeks if the cause has been identified and treated. If no cause has been identified, the licence should be refused or revoked for 6 months.	**Must not drive** and must notify the MEC. Driving may be allowed to resume after 3 months if the cause has been identified and treated. If no cause has been identified, the licence will be refused or revoked for 12 months.
Blackout with seizure markers		
This category is for those where on the balance of probability there is clinical suspicion of a seizure but no definite evidence. Individuals will require assessment by an appropriate specialist and investigation, for example EEG and brain scan, where indicated. The following factors indicate a likely seizure: • loss of consciousness for more than 5 minutes • amnesia longer than 5 minutes • injury • tongue biting • incontinence • post ictal confusion • headache post attack.		

TRANSIENT LOSS OF CONSCIOUSNESS (TLoC) ('BLACKOUTS') – or lost/altered awareness Transient loss of consciousness – solitary episode		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Whilst standing or sitting	**Must stop driving** and notify the MEC. 6 months off driving from the date of the episode	**Must stop driving** and notify the MEC 5 years off driving from the date of the episode

Transient loss of consciousness – recurring episodes

Introduction

Recurrent episodes of TLoC are less common than isolated episodes but the relevance to increased risk in driving cannot be overemphasised.
Recurrent TLoC is most commonly due to recurrent syncope, occurring in around 20% to 30% of patients. Recurrence of syncope is usually within three years of the first episode, and in over 80% of these cases there has been at least one additional episode within two years of the first episode.

With concern for road safety the two most important features of temporary loss of consciousness are:
- prodrome – are there warning signs sufficient in both nature and duration?
- posture – do the episodes of TLoC occur while sitting?

A prodrome must allow time for a driver to find a safe place to stop before losing consciousness. A prodrome is reliable if the signs are clear, consistent across all events and provide sufficient duration to find a safe stop, or unreliable if these are absent.

Licence holders or applicants should be informed that they must notify the MEC when transient loss of consciousness occurs while sitting.

For syncope occurring while standing or sitting, the following factors indicate **high risk**:
- abnormal ECG
- clinical evidence of structural heart disease.

Further investigations such as 48-hour ambulatory ECG, echocardiography and exercise testing may be indicated after specialist opinion has been sought.

TRANSIENT LOSS OF CONSCIOUSNESS (TLoC) ('BLACKOUTS') – or lost/altered awareness

Transient loss of consciousness – recurring episodes

	GROUP 1: Cars, LMV's Motorcycles	GROUP 2(3): Trucks, Passenger, Special.
Typical vasovagal syncope with reliable prodrome		
While standing	No driving restrictions. MEC need not be notified.	No driving restrictions MEC need not be notified
While sitting	**Must not drive** and must notify the MEC. **Must not drive** until annual risk of recurrence is assessed as below 20%.	**Must not drive** and must notify the MEC. **Must not drive** until annual risk of recurrence is assessed as below 2%.
Syncope with avoidable trigger or reversible cause (for cough syncope see later).		
While standing	No driving restrictions. MEC need not be notified.	No driving restrictions. MEC need not be notified.
Whilst sitting	**Must not drive** for 4 weeks. Driving may resume after 4 weeks only if the cause has been identified and treated. Must notify the MEC if the cause has not been identified and treated.	**Must not drive** for 3 months. Driving may resume after 3 months only if the cause has been identified and treated. Must notify the MEC if the cause has not been identified and treated.
Unexplained syncope, including syncope without reliable prodrome **This diagnosis may apply only after appropriate neurological and/or cardiological opinion and investigations have detected no abnormality.**		
Whilst standing or sitting	**Must not drive** and must notify the MEC. If no cause has been identified, the licence should be refused or revoked for 12 months.	**Must not drive** and must notify the MEC. If no cause has been identified, the licence should be refused or revoked for10 years.
Cardiovascular, but excluding typical vasovagal syncope		
Whilst standing or sitting	**Must not drive** and must notify the MEC. Driving may be allowed to resume after 4 weeks if the cause has been identified and treated. If no cause has been identified, the licence should be refused or revoked for 6 months.	**Must not drive** and must notify the MEC. Driving may be allowed to resume after 3 months if the cause has been identified and treated. If no cause has been identified, the licence will be refused or revoked for 12 months.
Blackout with seizure markers This category is for those where on the balance of probability there is clinical suspicion of a seizure but no definite evidence. Individuals will require assessment by an appropriate specialist and investigation, for example EEG and brain scan, where indicated.		

TRANSIENT LOSS OF CONSCIOUSNESS (TLoC) ('BLACKOUTS') – or lost/altered awareness Transient loss of consciousness – recurring episodes		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Whilst standing or sitting	Must stop driving and notify the MEC. The epilepsy guidelines apply.	Must stop driving and notify the MEC. The epilepsy guidelines apply.
Cough syncope or presyncope		
	Must not drive and must notify the MEC. **Must not drive** for 6 months following a single episode and for 12 months following multiple episodes over 5 years. Reapplication may be considered at any point if all of the following can be satisfied: • any underlying chronic respiratory condition is well controlled • smoking cessation • body mass index is below 30 • gastro-oesophageal reflux is treated.	**Must not drive** and must notify the MEC. **Must not drive** for 5 years from the date of the last episode. Reapplication may be considered after 1 year if the all the following can be satisfied: • any underlying chronic respiratory condition is well controlled • smoking cessation • body mass index is below 30 • gastro-oesophageal reflux is treated • confirmation of these by a specialist doctor.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
PRIMARY/CENTRAL HYPERSOMNIAS - INCLUDING NARCOLEPSY (for other causes of sleepiness, see chapter on "Miscellaneous conditions")		
	Must not drive and must notify the MEC. A licence may be reissued only after between 3 and 6 months of satisfactory symptom control with appropriate treatment. If not requiring treatment, relicensing may be considered after satisfactory objective assessment of maintained wakefulness, such as the Osler test.	**Must not drive** and must notify the MEC. Relicensing may be considered subject to satisfactory objective assessment, performed by a specialist, of maintained wakefulness, such as the Osler test.
CHRONIC NEUROLOGICAL DISORDERS - including multiple sclerosis and motor neurone disease Any chronic neurological disorder that may affect vehicle control because of impaired coordination and muscle strength.		
	May drive as long as safe vehicle control is maintained at all times. A licence valid for 1, 2, 3 or 5 years may be issued provided medical enquiries and an assessment confirm that driving performance is not impaired. The licence may specify a restriction to cars with certain controls.	May drive as long as safe vehicle control is maintained at all times. A licence should be refused or revoked if the condition is progressive or disabling. If driving is not impaired and the underlying condition is stable, licensing should be considered on an individual basis subject to satisfactory medical reports and annual review.
PARKINSON'S DISEASE		
	May drive as long as safe vehicle control is maintained at all times. If the condition is disabling and/or there is clinically significant variability in motor function, the licence should be refused or revoked. If driving is not impaired, licensing should be considered subject to satisfactory medical reports and assessment. A licence may be issued subject to regular review.	May drive as long as safe vehicle control is maintained at all times. If the condition is disabling and/or there is clinically significant variability in motor function, the licence should be refused or revoked. If driving is not impaired, licensing should be considered subject to satisfactory medical reports and assessment. A licence may be issued subject to annual review.
GIDDINESS - liability to sudden attacks of unprovoked or unprecipitated disabling giddiness Sudden is defined as 'without warning' and disabling is defined as 'unable to continue with the activity being performed'. (Ménière's disease is an example)		

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
	Must not drive on presentation of diagnosis. Driving may be permitted when satisfactory control of symptoms achieved. If remains asymptomatic, normal licence restored.	**Must not drive** on presentation of diagnosis. If there are sudden and disabling symptoms, the licence should be refused or revoked. If an underlying diagnosis is likely to cause recurrence, the patient must be asymptomatic and completely controlled for 1 year from an episode before reapplying for their licence.
STROKE AND TRANSIENT ISCHAEMIC ATTACK (TIA) - including amaurosis fugax For Group 2 bus and lorry drivers, the guidance is the same whether concerning stroke, or single or multiple transient ischaemic attack (TIA).		
Stroke	**Must not drive** but may not need to notify the MEC. Driving may resume after 1-month if there has been satisfactory clinical recovery. The MEC does not need to be notified unless there is residual neurological deficit 1 month after the episode and, in particular: • visual field defects • cognitive defects and impaired limb function. Minor limb weakness alone after a stroke will not require notification to the MEC unless restriction to certain types of vehicle or adapted controls may be needed. With adaptations, severe physical impairment may not be an obstacle to driving. Seizures occurring at the time of a stroke or TIA, or in the ensuing 24 hours, may be treated as provoked for licensing purposes, provided there is no previous history of seizure or cerebral pathology.	**Must not drive** and must notify the MEC. A licence will be refused or revoked for 1 year following a stroke or TIA. Relicensing after 1 year may be considered if: • there is no debarring residual impairment likely to affect safe • driving and there are no other significant risk factors. Licensing may be subject to a satisfactory medical report, including results of exercise ECG testing. If imaging evidence shows less than 50% carotid artery stenosis and there is no previous history of cardiovascular disease, a licence may be issued without the need for functional cardiac assessment. Patients with recurrent TIAs or strokes will be required to undergo functional cardiac testing.
Single TIA	**Must not drive** for 1 month but need not notify the MEC.	Same as above

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Multiple TIA's	**Must not drive** and must notify the MEC. Multiple TIAs over a short period will require no driving for 3 months. Driving may resume after 3 months if there have been no further TIAs.	Same as above
CAROTID ARTERY STENOSIS		
	May drive and need not notify the MEC.	Should not drive (and must notify MEC) unless, in the view of an appropriate healthcare professional, it is safe to do so. If the level of stenosis is severe enough to warrant surgical or radiological intervention, the requirements for exercise or other functional test must be met – see Chapter on Cardiovascular Disorders (Cardiac Considerations).
ACUTE ENCEPHALITIC ILLNESSES AND MENINGITIS – including limbic encephalitis associated with seizures		
	Must not drive and may need to notify the MEC. (see below)	**Must not drive** and may need to notify the MEC. (see below)
	If there are no seizures, may resume driving after complete clinical recovery and need not notify the MEC unless there is residual disability.	If there are no seizures, may resume driving after complete clinical recovery and need not notify the MEC unless there is residual disability.
	If seizures occur during an acute febrile illness, the MEC must be notified and will refuse or revoke a licence for 6 months, after which a normal licence may be reissued.	If seizures occur during an acute febrile illness, the MEC must be notified and will require freedom from seizures without anticonvulsant medication: • for 5 years in meningitis cases • for 10 years in encephalitis cases.
	If seizures occur during or after convalescence, the MEC must be notified and will refuse or revoke a licence until the epilepsy guidelines are met.	If seizures occur during or after convalescence, the MEC must be notified and will refuse or revoke a licence until the epilepsy guidelines are met.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
TRANSIENT GLOBAL AMNESIA		
	May drive provided epilepsy, any sequelae from head injury and other causes of altered awareness have been excluded. The MEC does not need to be notified and a normal licence may be retained.	Driving is not barred by a single confirmed episode, and the licence may be retained. Driving should stop if two or more episodes occur, and the MEC must be notified. Specialist assessment will be required to exclude all other causes of altered awareness.
ARACHNOID CYSTS		
Asymptomatic and no need for treatment	May drive and need not notify the MEC	May drive and need not notify the MEC
Treated by craniotomy and/or endoscopically	**Must not drive** for 6 months and must notify the MEC.	**Must not drive** and must notify the MEC. Relicensing may be considered after 2 years following treatment, provided there is no debarring residual impairment likely to affect safe driving.
COLLOID CYSTS		
Asymptomatic and no need for treatment	May drive and need not notify the MEC	Must notify the MEC. May drive unless prophylactic medication for seizures is prescribed, in which case an individual assessment will be required.
Treated by craniotomy and/or endoscopically	Should not drive for 6 months but need not notify the MEC.	**Must not drive** and must notify the MEC. Relicensing may be considered after 2 years following treatment, provided there is no debarring residual impairment likely to affect safe driving.
PITUITARY TUMOUR		
Treated by craniotomy	Should not drive and must notify the MEC. Driving may resume after 6 months provided there is no visual field defect. If there is visual field loss, see Chapter on visual disorders.	**Must not drive** and must notify the MEC. Driving will remain prohibited for 2 years.
No need for treatment, or treated by trans-sphenoidal surgery or therapy such as drugs or radiotherapy	Should not drive but need not notify the MEC. Driving may resume on recovery provided there is no debarring visual field defect.	Should not drive but need not notify the MEC. Driving may resume on recovery provided there is no debarring visual field defect.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
BENIGN BRAIN TUMOURS Benign supra-tentorial tumour (WHO grade I meningioma, for example)		
Treated by craniotomy	**Must not drive** but need not notify the MEC. Driving may resume after 6 months provided there is no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply if there is relevant seizure history.	**Must not drive** and must notify the MEC. The licence may be refused or revoked. In the absence of any seizures and with evidence of complete tumour removal, relicensing may be considered 5 years after the surgery. If the tumour is associated with seizure, relicensing will not be considered until 10 years after surgery, provided these years are free from seizures without epilepsy medication. Specialist assessment may be required.
Treated by stereotactic radio surgery	Should not drive unless, in the view of an appropriate healthcare professional, it is safe to do so. Need not notify the MEC. Driving may resume after 1 month provided there is no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply if there is relevant seizure history.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Provided there is evidence of stability on imaging, relicensing may be considered 3 years from completion of the primary tumour treatment. If the tumour is associated with seizure, relicensing will not be considered until 10 years after surgery, provided these years are free from seizures without epilepsy medication. Specialist assessment may be required.
Treated by fractionated radiotherapy	Should not drive unless, in the view of an appropriate healthcare professional, it is safe to do so. Need not notify the MEC. Driving may resume on completion of treatment provided there is no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply if there is relevant seizure history.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Provided there is evidence of stability on imaging, relicensing may be considered 3 years from completion of the primary tumour treatment. If the tumour is associated with seizure, relicensing will not be considered until 10 years after surgery, provided these years are then free from seizures without epilepsy medication. Specialist assessment may be required.
WHO grade II meningiomas treated with craniotomy and/or radio surgery and/or radiotherapy		

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
	Must not drive and must notify the MEC. Driving may resume 1 year after completion of treatment. The epilepsy guidelines apply if there is relevant seizure history.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. In the absence of any seizures and with evidence of complete tumour removal, the MEC may consider relicensing 5 years after the surgery. If the tumour is associated with seizure, relicensing will not be considered until 10 years after surgery, provided these years are then free from seizures without epilepsy medication.
Asymptomatic incidental meningiomas not needing treatment		
	May drive and need not notify the MEC.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered after 2 scans performed 12 months apart show no growth. Individual assessment will be considered if such lack of growth cannot be demonstrated. Licences are reissued with annual review.
MALIGNANT BRAIN TUMOURS - including metastatic deposits and pineal tumours The standards will apply to first occurrence, recurrence and progression.		
Supratentorial		
WHO grade I or II glioma	**Must not drive** and must notify the MEC. Driving may resume 1 year after completion of primary treatment. Where there is imaging evidence of tumour recurrence or progression licensing may be considered if: • there has been a 1-year seizure free period • there is no clinical disease progression. These will apply whether or not chemotherapy has been given. A 1-year license will usually be considered.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently. Except grade I pineocytoma: relicensing may be considered on an individual basis 2 years after primary treatment, provided MRI imaging is satisfactory.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
WHO grade III meningioma	**Must not drive** and must notify the MEC. Driving may resume 2 years after the completion of primary treatment.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.
WHO grade III or IV gliomas, multiple metastatic deposits or primary CNS lymphoma	**Must not drive** and must notify the MEC. Driving may resume at least 2 years after the completion of primary treatment.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.
Solitary metastatic deposit	**Must not drive** and must notify the MEC. Relicensing may be considered 1 year after completion of the primary treatment if there was complete excision, and provided there is no recurrence or evidence of metastasis.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.
Infratentorial		
WHO grade I glioma	**Must not drive** and must notify the MEC. Driving may resume on recovery.	**Must not drive** and must notify the MEC. Driving may resume on recovery.
WHO grade II, III or IV glioma	**Must not drive** and must notify the MEC. Driving may resume 1 year (grade II) or 2 years (grades III and IV) after the completion of primary treatment.	**Must not drive** and must notify the MEC. Driving may resume 1 year (grade II) or 2 years (grades III and IV) after the completion of primary treatment.
Medulloblastoma or low-grade ependymoma	**Must not drive** and must notify the MEC. Driving may resume on recovery.	**Must not drive** and must notify the MEC. Driving may resume on recovery.
High-grade ependymoma, other primary malignant brain tumour or primary CNS lymphoma	**Must not drive** and must notify the MEC. Driving may resume 1 year (grade II) or 2 years (grades III and IV) after the completion of primary treatment.	**Must not drive** and must notify the MEC. Driving may resume 1 year (grade II) or 2 years (grades III and IV) after the completion of primary treatment.
Brain metastases	**Must not drive** and must notify the MEC. Driving may resume on recovery.	**Must not drive** and must notify the MEC. Driving may resume on recovery.
Malignant intracranial tumour in childhood: survival without recurrence	**Must not drive** and must notify the MEC. Driving may resume 1 year (grade II) or 2 years (grades III and IV) after the completion of primary treatment.	**Must not drive** and must notify the MEC. Driving may resume 1 year (grade II) or 2 years (grades III and IV) after the completion of primary treatment.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Incidental, asymptomatic low-grade glioma on imaging	**Must not drive** and must notify the MEC. Driving may resume on recovery.	**Must not drive** and must notify the MEC. Driving may resume on recovery.
BENIGN INFRATENTORIAL TUMOURS For example, meningioma treated with craniotomy with or without radiotherapy.		
	May drive and need not notify the MEC unless there is sudden and disabling giddiness.	May drive and need not notify the MEC unless there is sudden and disabling giddiness and/or the condition is bilateral.
SURGICAL TREATMENT	Resume driving following recovery and retain normal licence.	As for Group 1 provided that there is no debarring residual impairment likely to affect safe driving.
ACOUSTIC NEUROMA/SCHWANNOMA		
	Retain normal licence unless accompanied by disabling giddiness.	Retain normal licence unless accompanied by disabling giddiness and/or the condition is bilateral.
BRAIN BIOPSY - showing undetermined histology		
Treated by craniotomy and/or endoscopically	**Must not drive** and must notify the MEC. Relicensing may be considered after 6 months if there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. Relicensing may be considered after a minimum of 6 months depending on individual assessment of the underlying condition.
TRAUMATIC BRAIN INJURY		
	Must not drive and must notify the MEC. Relicensing may be considered usually after 6 to 12 months dependent on features such as **seizures, post-traumatic amnesia, dural tear, haematoma and contusions**. There will need to have been satisfactory clinical recovery and in particular no visual field defects or cognitive impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Driving may be relicensed after the annual risk of seizure has fallen to 2% or below and provided no debarring residual impairment is likely to affect safe driving.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
SUBDURAL HAEMATOMA		
Spontaneous acute subdural haematoma		
Treated by craniotomy	**Must not drive** and must notify the MEC. Driving may resume 6 months after treatment.	**Must not drive** and must notify the MEC. Relicensing may be considered after at least 6 months from treatment and will require an individual assessment.
Chronic subdural haematoma		
Treated surgically	Should not drive but need not notify the MEC. Driving may resume on recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered after 6 to 12 months from treatment depending on individual features.
With any procedure, if another is also undertaken (for example, a ventriculo peritoneal shunt, a craniotomy for a haematoma), the standards for that procedure also apply, and may take precedence.		
SUBARACHNOID HAEMORRHAGE		
With no cause found		
	A Should not drive but need not notify the MEC. Driving may resume following clinical recovery provided comprehensive cerebral angiography is normal. The MEC will issue a normal licence.	**Must not drive** and must notify the MEC. Relicensing may be considered after 6 months provided comprehensive cerebral angiography is normal and no debarring residual impairment is likely to affect safe driving.
With intracranial aneurysm		
With aneurysm cause but intervention not currently needed	Should not drive but need not notify MEC. Driving may resume following clinical recovery.	Should not drive and must notify the MEC. The license should be refused or revoked permanently.
With intracranial aneurysm – non-middle cerebral artery		
Treated by craniotomy	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered after 1 year if the patient scored below 2 on the modified Rankin Scale (MRS) at 2 months. If the M RS score is 2 or higher at 2 months, relicensing will not be considered until after 2 years, and will require no debarring residual impairment likely to affect driving.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
With intracranial aneurysm		
Treated endovascularly	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered after 6 months if the patient scored below 2 on the modified Rankin Scale (MRS) at 2 months. If the M RS score is 2 or higher at 2 months, relicensing will not be considered until after 2 years, and will require no debarring residual impairment likely to affect driving.
With intracranial aneurysm – middle cerebral artery		
Treated by craniotomy	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered after 2 years if the patient scored below 2 on the modified Rankin Scale (MRS) at 2 months. If the M RS score is 2 or higher at 2 months, the licence should be refused or revoked. Relicensing will not be considered until after at least 2 years and a specialist assessment. Annual seizure risk should be no greater than 2% and there should be no residual impairment likely to affect driving.
Treated endovascularly	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered after 2 years if the patient scored below 2 on the modified Rankin Scale (MRS) at 2 months. If the M RS score is 2 or higher at 2 months, the licence should be refused or revoked. Relicensing will not be considered until after at least 2 years and a specialist assessment. Annual seizure risk should be no greater than 2% and there should be no residual impairment likely to affect driving.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
SUBARACHNOID HAEMORRHAGE - truly incidental finding without haemorrhage		
Treatment not currently needed	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered if: • an aneurysm in the anterior circulation (excluding cavernous carotid) is less than 13 millimetres in diameter • an aneurysm in the posterior circulation is less than 7 millimetres in diameter.
Treated by craniotomy	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** and must notify the MEC. Relicensing may be considered after 1 year.
Treated endovascularly	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery.	**Must not drive** but need not notify the MEC. Driving may resume following clinical recovery provided there are no complications from the procedure.
ARTERIOVENOUS MALFORMATION		
With any of the procedures, if another is also undertaken (for example, a ventriculo-peritoneal shunt or a craniotomy for a haematoma) the standards for that procedure also apply and may take precedence.		
SUPRATENTORIAL AVMs - Intracerebral haemorrhage due to supratentorial AVM		
Treatment not currently needed	**Must not drive** but need not notify the MEC. Driving may resume after 1 month provided there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.
Treated by craniotomy	**Must not drive** and must notify the MEC. Relicensing may be considered after 6 months if there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered after 10 years free of seizure since the last definitive treatment and the lesion was completely removed or ablated. There must be no debarring residual impairment likely to affect safe driving.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Treated by embolisation	**Must not drive** but need not notify the MEC. Driving may resume after 1 month provided there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered after 10 years free of seizure since the last definitive treatment and the lesion was completely removed or ablated. There must be no debarring residual impairment likely to affect safe driving.
Treated by strereotactic radiotherapy	**Must not drive** but need not notify the MEC. Driving may resume after 1 month provided there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered after 5 years free from seizure since the last definitive treatment and if the lesion was completely removed or ablated. There must be no debarring residual impairment likely to affect safe driving.
Supratentorial AVMs - Incidental finding of a supratentorial AVM (no history of intracranial bleed)		
Treatment not currently needed	May drive and need not notify the MEC.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.
Treated by surgery or other mode	**Must not drive** and must notify the MEC. Will require a period of time off driving depending on treatment and as per the relevant section.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered after 10 years free of seizure since the last definitive treatment and the lesion was completely removed or ablated. There must be no debarring residual impairment likely to affect safe driving.
Infratentorial AVMs - Intracranial haemorrhage due to AVM		
Treatment not currently needed	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Treated by craniotomy	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered without the need for review on confirmation of complete obliteration provided there is no debarring residual impairment likely to affect safe driving.
Treated by embolisation or stereotactic radiotherapy	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered without the need for review on confirmation of complete obliteration provided there is no debarring residual impairment likely to affect safe driving.
Infratentorial AVMs - Incidental finding of an infratentorial AVM		
Treatment not currently needed	May drive and need not notify the MEC.	**Must not drive** and must notify the MEC. Relicensing may be considered on an individual assessment.
Treated by surgery or other mode	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered without the need for review on confirmation of complete obliteration provided there is no debarring residual impairment likely to affect safe driving.
DURAL ARTERIOVENOUS FISTULA		
Treated by surgery or other mode	**Must not drive** and must notify the MEC. Relicensing may be considered on an individual assessment.	**Must not drive** and must notify the MEC. Relicensing may be considered on an individual assessment.
CAVERNOUS MALFORMATION		
There is no firm evidence of greater morbidity with multiple cavernomas, and size is not important.		
Supratentorial cavernous malformation		
Incidental finding	May drive and need not notify the MEC.	May drive and need not notify the MEC.
With seizure, no surgical treatment	**Must not drive** and must notify the MEC. The epilepsy guidelines apply if there is a history of seizure.	**Must not drive** and must notify the MEC. The epilepsy guidelines apply if there is a history of seizure.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
With haemorrhage and/or focal neurological deficit, no surgical treatment	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply, and the patient must not drive and must notify the MEC if there is a history of seizure.	**Must not drive** and must notify the MEC. The licence should be refused or revoked permanently.
Treated by craniotomy	**Must not drive** and must notify the MEC. Driving may resume after 6 months if there is no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply if there is a history of seizure.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Relicensing may be considered 10 years after surgical obliteration of the lesion. The epilepsy guidelines apply.
Treated by radio surgery (whether cavernous malformation incidental or symptomatic)	May drive and need not notify the MEC. The epilepsy guidelines apply and the patient must not drive and must notify the MEC if there is a history of seizure.	May drive and need not notify the MEC. The epilepsy guidelines apply and the patient must not drive and must notify the MEC if there is a history of seizure.
Infratentorial cavernous malformation		
Incidental finding	May drive and need not notify the MEC.	May drive and need not notify the MEC.
With haemorrhage and/or focal neurological deficit, no surgical treatment	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply and the patient must not drive and must notify the MEC if there is a history of seizure.	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply and the patient must not drive and must notify the MEC if there is a history of seizure.
Treated by craniotomy	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply and the patient must not drive and must notify the MEC if there is a history of seizure.	May drive and need not notify the MEC. There must be no debarring residual impairment likely to affect safe driving. The epilepsy guidelines apply and the patient must not drive and must notify the MEC if there is a history of seizure.
INTRACEREBRAL ABSCESS/ SUBDURAL EMPYEMA		

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
	Must not drive and must notify the MEC. Driving may resume after 1 year.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Given there is a very high prospective risk of seizure, it will be 10 years before relicensing may be considered and there must have been no seizures without treatment in that time.
CRANIOPLASTY		
.	May drive but must notify the MEC. Driving may resume on recovery providing there are no complications. If these occur, the relevant licensing standards would apply. The underlying conditions leading to surgery will require consideration.	**Must not drive** and must notify the MEC. Relicensing may be considered after 6 to 12 months from treatment depending on individual features.
HYDROCEPHALUS		
	May drive and need not notify the MEC. If the hydrocephalus is uncomplicated driving may continue under a normal licence.	**Must not drive** and must notify the MEC. Driving will be allowed to continue if the hydrocephalus is uncomplicated and there are no associated neurological problems.
INTRAVENTRICULAR SHUNT OR EXTRAVENTRICULAR DRAIN - Insertion or revision of upper end of ventricular shunt or extra-ventricular drain.		
	Must not drive and must notify the MEC. Driving may be relicensed after 6 months if there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC.
NEUROENDOSCOPIC PROCEDURES, e.g. third ventriculostomy		
	Must not drive and must notify the MEC. Driving may be relicensed after 6 months if there is no debarring residual impairment likely to affect safe driving and no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may be relicensed after a minimum of 6 months depending on individual assessment of the underlying condition.
INTRACRANIAL PRESSURE MONITORING DEVICE - Inserted by Burr hole surgery.		
	Must not drive and must notify the MEC. The prospective risk from the underlying condition must be considered.	**Must not drive** and must notify the MEC. The prospective risk from the underlying condition must be considered.

NEUROLOGICAL DISORDERS OTHER THAN EPILEPSY		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
INTRACRANIAL PRESSURE MONITORING DEVICE - Inserted by Burr hole surgery.		
Deep brain stimulation for movement disorder or pain		
	Should not drive but need not notify the MEC. May drive if there are no complications from surgery and the patient is seizure-free, provided there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. Fitness to drive may be assessed For relicensing if there are no complications from surgery and the patient is seizure-free with an underlying condition that is non-progressive, provided there is no debarring residual impairment likely to affect safe driving.
Implanted motor cortex stimulator for pain relief		
	Must not drive and must notify the MEC. Driving may be relicensed after 6 months if the aetiology of the pain is non-cerebral -trigeminal neuralgia, for example. If the aetiology is cerebral - stroke, for example - it will be 12 months before driving may be relicensed, provided there is no debarring residual impairment likely to affect safe driving.	**Must not drive** and must notify the MEC. The licence should be refused or revoked.

CHAPTER 2: CARDIOVASCULAR DISORDERS

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
ANGINA		
	Must not drive when symptoms occur: • at rest • with emotion • at the wheel. Driving may resume after satisfactory symptom control. Need not notify the MEC.	**Must not drive** and must notify the MEC when symptoms occur. A licence will be refused or revoked if symptoms continue (treated or untreated). Driving may be relicensed (provided there is no other disqualifying condition) if: • no angina for at least 6 weeks, and • the requirements for exercise or other functional tests can be met (see Cardiovascular Considerations)
ACUTE CORONARY SYNDROMES (ACS		
Acute coronary syndromes are defined as follows: • unstable angina (symptoms at rest, with ECG changes) non-ST elevation MI with at least two of the following three 1. symptoms at rest 2. raised serum troponin 3. ECG changes • STEMI symptoms, with ST elevation on ECG.		
	Must not drive but need not notify the MEC. Driving may resume 1 week after successful coronary angioplasty and if: no other urgent revascularisation planned (urgent means within 4 weeks of acute event) LV ejection fraction is at least 40% before hospital discharge there is no other disqualifying condition. If no successful coronary angioplasty, driving may resume only after 4 weeks from acute event, provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC-for all ACSs. Licence will be refused or revoked. Driving may be relicensed after at least 6 weeks and if: • the requirements for exercise or other functional tests can be met (see Cardiovascular Considerations) • there is no other disqualifying condition.

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
PERCUTANEOUS CORONARY INTERVENTION (PCI) - elective angioplasty with or without stent		
	Must not drive but need not notify the MEC. Driving may resume after at least 1 week provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Licence will be refused or revoked. Driving may be relicensed after at least 6 weeks and if: • the requirements for exercise or other functional tests can be met (see Cardiovascular Considerations) • there is no other disqualifying condition.
CORONARY ARTERY BYPASS GRAFT (CABG)		
	Must not drive but need not notify the MEC. Driving may resume after at least 4 weeks provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Licence will be refused or revoked. Driving may be relicensed after at least 3 months and if: • no evidence of significant left ventricular impairment - LV ejection fraction is at least 40% • the requirements for exercise or other functional tests can be met (see Cardiovascular Considerations), also at least 3 months postoperatively • there is no other disqualifying condition.
ARRHYTHMIAS		
Arrhythmias include: • sinoatrial disease • significant atrioventricular conduction defect • atrial flutter/fibrillation • narrow or broad complex tachycardia. **Note:** • if a transient arrhythmia occurs during an acute coronary syndrome, the guidance relating to ACS takes precedence • pacemakers are considered separately.		

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Arrhythmia likely to cause incapacity	**Must not drive** and may need to notify the MEC. Driving may resume without MEC notification only after: • Underlying cause has been identified • Arrhythmia is controlled for at least 4 weeks Must notify the MEC if there are distracting or disabling symptoms	**Must not drive** and must notify the MEC. Licence will be refused or revoked. Driving may be relicensed (provided there is no other disqualifying condition) only after: • underlying cause has been identified • arrhythmia has been controlled for at least 3 months • no evidence of significant left ventricular impairment - LV ejection fraction is at least 40%
SUCCESSFUL CATHETER ABLATION		
For arrhythmia causing or likely to cause incapacity	**Must not drive** but need not notify the MEC. Driving may resume after at least 2 days provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may resume after 6 weeks provided there is no other disqualifying condition.
For arrhythmia not causing nor likely to cause incapacity	**Must not drive** but need not notify the MEC. Driving may resume after at least 2 days provided there is no other disqualifying condition.	**Must not drive** but need not notify the MEC. Driving may resume after 2 weeks provided there is no other disqualifying condition.
PACEMAKER IMPLANT - including box change		
For arrhythmia causing or likely to cause incapacity	**Must not drive** and must notify the MEC. Driving may resume after1 week provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may resume after 6 weeks provided there is no other disqualifying condition.
UNPACED CONGENITAL COMPLETE HEART BLOCK		
Asymptomatic	May drive and need not notify the MEC.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.

CARDIOVASCULAR DISORDERS **NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.**		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Symptomatic	**Must not drive** and must notify the MEC. Licence will be refused or revoked.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
ATRIAL DEFIBRILLATOR		
Physician or patient activated	May drive provided there is no other disqualifying condition. Must notify the MEC.	**Must not drive** and must notify the MEC. Driving may be relicensed (provided there is no other disqualifying condition) after the arrhythmia requirements have been met (see Cardiovascular Considerations).
Automatic	May drive provided there is no other disqualifying condition. Must notify the MEC. Note: also refer to the implantable cardioverter defibrillator (ICD) requirements below.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD)		
Group 1 car and motorcycle In all cases of ICD for sustained ventricular arrhythmia associated with incapacity, **driving must stop for 6 months** from the date of ICD implantation and any resumption requires: • the device being under regular review with interrogation • no other disqualifying condition. **Group 2 bus and lorry** ICD implantation is a permanent bar to Group 2 licensing. In all cases of ICD implantation (including prophylactic ICD implantation) **driving must stop permanently** and: • the MEC must be notified • the licence should be refused or revoked permanently.		
ICD for sustained ventricular arrhythmia associated with incapacity		
Without further sequelae	**Must not drive** and must notify the MEC. Driving may resume after 6 months from a first implant - except that any of the sequelae 1 -4 below require further specific restrictions and may require notification to the MEC.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
1. With any shock therapy and/ or pacing for symptomatic tachycardia	**Must not drive** and must notify the MEC. **Must not drive** for a further 6 months from the time of any shock therapy or pacing for symptomatic tachycardia.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
2. With incapacity following implantation or therapy (whether caused by device or arrhythmia)	**Must not drive** and may need to notify the MEC. **Must not drive** for 2 years after symptoms of incapacity and must notify the MEC. Exceptions to this 2-year requirement apply as follows, but the minimum initial restriction after implantation still applies (i.e. must not drive for 6 months). 1. If therapy delivery was due to an inappropriate cause such as atrial fibrillation or, for example, programming issues: driving may resume 1 month after complete control of any cause to the satisfaction of the cardiologist. 2. If therapy delivery was due to sustained ventricular tachycardia or ventricular fibrillation: • driving may resume 6 months after event • provided preventive steps against recurrence have been taken with anti-arrhythmic drugs or ablation procedure, for example • and provided there is an absence of further symptomatic therapy.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
3. With any revision of electrodes or alteration of anti-arrhythmic drug treatment	**Must not drive** but need not notify the MEC. Driving may resume 1 month after electrode revision or drug alteration. The minimum initial restriction after implantation still applies (must not drive for 6 months).	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.

CARDIOVASCULAR DISORDERS **NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.**		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
4. With defibrillator box change	**Must not drive** but need not notify the MEC. Driving may resume 1 week after box change. The minimum initial restriction after implantation still applies (must not drive for 6 months).	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
ICD for sustained ventricular arrhythmia not associated with incapacity		
	Must not drive for 1 month and may need to notify the MEC. Driving may resume 1 month after implantation and the MEC need not be notified, provided: • presentation was a 'non-disqualifying' cardiac event- i.e. haemodynamically stable sustained ventricular tachycardia without incapacity • LV ejection fraction is greater than 35% • no fast ventricular tachycardia (VT) induced on electrophysiological study - i.e. RR interval of less than 250 milliseconds • during the post implantation study, any induced VT could be pace-terminated by the ICD twice, without acceleration. Note: should ICD subsequently deliver anti-tachycardia pacing and/or shock therapy (except during normal clinical testing), the MEC must be notified and the restrictions must be applied as for sustained ventricular arrhythmia associated with incapacity.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Prophylactic ICD		
In asymptomatic individuals with a high risk of significant arrhythmia	**Must not drive** and must notify the MEC. • driving may resume 1 month after implantation (need not notify the MEC if remains asymptomatic and no ICD therapy needed) • should the ICD subsequently deliver anti-tachycardia pacing and/ or shock therapy (except during normal clinical testing), the MEC must be notified and the restrictions must be noted as for sustained ventricular arrhythmia associated with incapacity. • need not notify the MEC if remains asymptomatic and no ICD therapy needed.	**Must not drive** and must notify the MEC. Licence should be refused or revoked permanently.
AORTIC ANEURYSM - ascending or descending thoracic and/or abdominal		
Low risk	May drive and need not notify the MEC if aneurysm diameter is less than 6 cm.	May drive if the aneurysm diameter is less than 5.5 cm. Must notify the MEC.
Managed risk	May drive but must notify the MEC if aneurysm diameter is between 6 cm and 6.4 cm. Driving may be relicensed subject to annual review.	**Must not drive** and must notify the MEC if the aneurysm diameter is 5.5 cm or greater. Licence will be refused or revoked. Driving may be relicensed after successful surgical treatment without evidence of further enlargement and no other disqualifying condition.
High risk	**Must not drive** and must notify the MEC if aneurysm diameter is 6.5 cm or greater. Licence will be refused or revoked. Driving may be relicensed after successful surgical treatment without evidence of further enlargement and no other disqualifying condition.	**Must not drive** and must notify the MEC if the aneurysm diameter is 5.5 cm or greater. Licence will be refused or revoked. Driving may be relicensed after successful surgical treatment without evidence of further enlargement and no other disqualifying condition. For surgically treated abdominal aortic aneurysm the exercise or other functional test requirements will need to be met.

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
AORTIC DISSECTION - ascending or descending thoracic and/or abdominal		
Note: 'well controlled' blood pressure means clinically relevant to aortic dissection, not the MEC standard for hypertension.		
	Must not drive and may need to notify the MEC. If aortic diameter exceeds 6 cm driving may resume after satisfactory surgical intervention and/or: satisfactory medical therapy (blood pressure well controlled) medical follow-up no other disqualifying condition. If aortic diameter is 6 cm or greater, the driving restrictions given under aortic aneurysm (see above) must take effect, with the MEC notified.	**Must not drive** and must notify the MEC. Licence will be refused or revoked. Driving may be relicensed only after all the following are met: • if chronic aortic dissection maximum transverse diameter of the aorta is less than 5.5 cm (including the false lumen) • complete thrombosis of the false lumen • medical follow up in place • satisfactory surgical intervention and/or • satisfactory medical therapy (blood pressure well controlled).
MARFAN SYNDROME AND OTHER INHERITED AORTOPATHIES		
	May drive and need not notify the MEC if no aneurysm. If there is aneurysm, see above for the restrictions under aortic aneurysm.	**Must not drive** and must notify the MEC. Driving may be relicensed only if: • standards are met for aortic aneurysm (see above) • satisfactory medical treatment • annual review (including aortic root measurement) by a cardiologist or related specialist. • For aortic root replacement, driving may be relicensed after an individual assessment (see Cardiovascular Considerations).
PERIPHERAL ARTERIAL DISEASE		
	May drive and need not notify the MEC. There must be no other disqualifying condition.	May drive but must notify the MEC. Driving may be relicensed only if: • there is no symptomatic myocardial ischemia, and • the exercise or other functional test requirements can be met (see Cardiovascular Considerations).

CARDIOVASCULAR DISORDERS **NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.**		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
HYPERTENSION		
	May drive and need not notify the MEC, except: **Must not drive** if **treatment** for any level of hypertension causes side-effects that affect or are likely to affect safe driving (but need not notify the MEC).	May drive and need not notify the MEC, except: **Must not drive** and must notify the MEC if resting BP is consistently: • 180 mm Hg or higher systolic and/or • 100 mm Hg or more diastolic. Driving may be relicensed after BP is controlled, provided there are no side-effects from treatment that affect or are likely to affect safe driving.
CARDIOMYOPATHIES Note: Group 2 bus and lorry licensing should be barred whenever left ventricular ejection fraction is less than 40%.		
Also refer to the following sections in this document: • arrhythmias • pacemaker implant • implantable cardioverter defibrillator		
Hypertrophic Cardiomyopathy (HCM)		
Asymptomatic	May drive and need not notify the MEC. There must be no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may be relicensed only after at least a 25 mm Hg increase in systolic blood pressure during exercise testing (testing to be repeated every 3 years) has been demonstrated and at least two of the following three criteria are met: 1. no first-degree family history of sudden premature death from presumed HCM 2. HCM not anatomically severe – wall thickness no greater than 3 cm confirmed by cardiologist 3. no serious abnormality of heart rhythm such as non-sustained ventricular tachycardia (NSVT). See Cardiovascular Considerations for full details.

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Symptomatic	May drive and need not notify the MEC. There must be no other disqualifying condition.	**Must not drive** and must notify the MEC. Licence will be refused or revoked.
Dilated Cardiomyopathy		
Asymptomatic	May drive and need not notify the MEC. There must be no other disqualifying condition.	May drive but must notify the MEC. There must be no other disqualifying condition.
Symptomatic	May drive and need not notify the MEC. There must be no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may be relicensed if there is no other disqualifying condition.
ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY - and Allied Disorders		
Asymptomatic	May drive and need not notify the MEC.	**Must not drive** and must notify the MEC. Driving may be relicensed following specialist electrophysiological assessment, provided there is no other disqualifying condition.
Symptomatic	**Must not drive** and must notify the MEC if arrhythmia has caused or is likely to cause incapacity. Driving may be relicensed once arrhythmia is controlled, provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Re-licensing may be permitted if: • the applicant is on treatment • the applicant has remained asymptomatic for a period of 1 year and • the applicant remains under regular specialist electrophysiological review. A 3-year license may be considered if the specialist electrophysiological review is satisfactory.
HEART FAILURE		
Asymptomatic	May drive and need not notify the MEC.	May drive and need not notify the MEC.

CARDIOVASCULAR DISORDERS **NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.**		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Symptomatic	**Must not drive** if there are symptoms likely to distract the driver or otherwise affect safe driving but need not notify the MEC.	**Must not drive** and must notify the MEC. Licence will be refused or revoked. Relicensing would require: • LV ejection fraction at least 40% • no other disqualifying condition. Depending on likely cause for heart failure, exercise or other functional testing for heart failure may be required (see Cardiovascular Considerations).
Left ventricular assist device implanted	**Must not drive** and must notify the MEC. Driving may be relicensed under individual assessment only after 3 months from implantation.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
CARDIAC RESYNCHRONISATION THERAPY (CRT)		
CRT pacemaker	**Must not drive** and must notify the MEC. Driving may resume after at least 1 week from implantation if: • there are no symptoms likely to affect safe driving • there is no other disqualifying condition	**Must not drive** and must notify the MEC. Driving may resume after at least 6 weeks from implantation if: • the requirements under heart failure (see above) are met • there is no other disqualifying condition.
CRT defibrillator	May drive subject to following provisions but must notify the MEC. Provisions: • the requirements under implantable cardioverter defibrillator (ICD) are met • there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Licence will be refused or revoked permanently.
HEART TRANSPLANT - including heart and lung transplant		
	Must not drive for at least 6 weeks after surgery. Need not notify the MEC. There must be no other disqualifying condition.	**Must not drive** for at least 3 months following surgery and must notify the MEC. Driving may be relicensed provided: • any exercise or other functional testing requirements of this guideline are met • LV ejection fraction at least 40% • there is no other disqualifying condition. • • • •

CARDIOVASCULAR DISORDERS **NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.**		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
HEART VALVE DISEASE		
Note: • Also refer to heart valve surgery • For aortic stenosis, see below		
Asymptomatic	May drive and need not notify the MEC. There must be no other disqualifying condition.	May drive and need not notify the MEC. There must be no other disqualifying condition.
Symptomatic	B May drive and need not notify the MEC. There must be no other disqualifying condition.	**Must not drive** and must notify the MEC. If there is no other disqualifying condition and once free of symptoms, driving may be relicensed. If there is cerebral embolism, relicensing may be after 12 months and following specialist assessment required by the MEC to determine fitness.
AORTIC STENOSIS		
See "Cardiac considerations" for definition of "severe" asymptomatic aortic stenosis		
Asymptomatic	May drive and need not notify the MEC.	**Must not drive** and must notify the MEC. If though asymptomatic aortic stenosis is severe, an annual review licence may be issued, provided: • the exercise tolerance test requirements from the MEC are met (see Cardiovascular Considerations) • there is satisfactory medical follow-up. Licensing should be refused if: • during an exercise test symptoms develop, blood pressure falls or there are ECG changes • a cardiologist considers that exercise testing would be unsafe for the individual • a test is not possible for any other reason. • •

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Symptomatic	**Must not drive** and must notify the MEC. Licence will be refused or revoked pending assessment and treatment.	**Must not drive** and must notify the MEC. Licence will be refused or revoked pending assessment and treatment.
HEART VALVE SURGERY - including transcatheter aortic valve implantation		
	Must not drive but need not notify he MEC. Driving may resume only after at least 4 weeks, provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may be relicensed only after at least 3 months, provided: • no evidence of significant left ventricular impairment - that is, LV ejection fraction at least 40% • no ongoing symptoms • no other disqualifying condition.
HEART VALVE SURGERY - including transcatheter aortic valve implantation		
	Must not drive but need not notify the MEC. Driving may resume only after at least 4 weeks, provided there is no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may be relicensed only after at least 3 months, provided: • no evidence of significant left ventricular impairment - that is, LV ejection fraction at least 40% • no ongoing symptoms • no other disqualifying condition.
HEART VALVE SURGERY - including transcatheter aortic valve implantation		
	May drive, but must notify the MEC. The MEC may require specialist assessment to issue a licence, which may be subject to medical review at 1, 2 or 3 years. There must be no other disqualifying condition.	May drive, but must notify the MEC. Licence should be refused or revoked if CHD is complex or severe. Otherwise, the MEC may issue a licence subject to medical review at 1, 2 or 3 years, depending on specialist assessment and provided there is: • minor disease • successful repair of defects or relief of valvular problems, fistulae, and so on • no other disqualifying condition. •

CARDIOVASCULAR DISORDERS NB: A Left Ventricular Ejection Fraction of < 0.4 is considered a bar to Group 2 license.		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
ECG ABNORMALITY		
SUSPECTED MYOCARDIAL INFARCTION		
	May drive and need not notify the MEC. There must be no other disqualifying condition.	**Must not drive** and must notify the MEC. Driving may be relicensed only after at least 3 months, provided: • exercise or other functional test requirements from this guideline are met (see Cardiovascular Considerations) • there is no other disqualifying condition.
LEFT BUNDLE BRANCH BLOCK		
	May drive and need not notify the MEC. There must be no other disqualifying condition.	May drive but must notify the MEC. Driving may be relicensed if: • myocardial perfusion scan or stress echocardiography requirements from this guideline are met (see Cardiovascular Considerations) • there is no other disqualifying condition.
PRE-EXCITATION		
	May drive and need not notify the MEC. There must be no other disqualifying condition.	May drive and need not notify the MEC, except: If associated with arrhythmia must meet the relevant requirements (see arrhythmias). There must be no other disqualifying condition.

SPECIAL CONSIDERATIONS FOR CARDIOVASCULAR DISORDERS

Group 1 car and motorcycle and Group 2 bus and lorry entitlements

Medication

If drug treatment for any cardiovascular condition is required, any adverse effects likely to affect safe driving will necessitate the licence being refused or revoked.

Group 2 bus and lorry entitlement only

Licence duration

A bus or lorry licence issued after cardiac assessment - usually for ischaemic or untreated heart valve disease - will usually be short-term, for a maximum licence duration of 3 years, and licence renewal will require satisfactory medical reports.

Exercise tolerance testing

The guideline no longer requires regular anti-anginal medication (i.e., nitrates, beta blockers, calcium channel blockers, nicorandil, ivabradine and ranolazine prescribed for anti-anginal purposes) to be stopped prior to exercise tolerance testing. When any of these drugs are prescribed purely for the control of hypertension or an arrhythmia, then discontinuation prior to exercise testing is not required. The requirements for exercise evaluation are:

1. The test must be on a bicycle (cycling for 10 minutes with 20 W per minute increments, to a total of 200 W) or treadmill.

2. The patient should be able to complete 3 stages of the standard Bruce protocol or equivalent safely, while remaining free of signs of cardiovascular dysfunction, viz:
   - angina pectoris
   - syncope
   - hypotension.

3. There must be no sustained ventricular tachycardia and/or electrocardiographic ST segment shift (usually of not more than 2 mm horizontal or down-sloping) that is interpreted by a cardiologist as indicative of myocardial ischaemia, either during exercise or the recovery period.

Should atrial fibrillation develop de novo during exercise testing, the licensing requirements will be the same as for individuals with pre-existing atrial fibrillation -that is, provided all the exercise tolerance test criteria above are met, licensing should be subject to echocardiogram and confirmation of left ventricular ejection fraction of at least 40%.

This guideline requires exercise evaluation at regular intervals not to exceed 3 years if there is established coronary heart disease.

Chest pain of uncertain cause (angina not yet excluded)

Exercise testing should be performed as outlined above.
Individuals with a locomotor or other disability who cannot undergo or comply with the exercise test requirements will require a gated myocardial perfusion scan or stress echo study accompanied when required by specialist cardiological opinion.

Stress myocardial perfusion scan or stress echocardiography

Should the adjudicating practitioner require these imaging tests, the relevant licensing guidelines are as follows, provided the LV ejection fraction is 40% or more:

- no more than 10% of the myocardium is affected by reversible ischaemic change on myocardial perfusion imaging

or
- no more than one segment is affected by reversible ischaemic change on stress echocardiography.

Coronary angiography

For licensing purposes, this guideline considers functional implication to be more predictive than anatomical findings in coronary artery disease. 'Predictive' refers to the risk of an infarct within 1 year. Grafts are considered as 'coronary arteries'.

For this reason, exercise tolerance testing and, where necessary, myocardial perfusion imaging or stress echocardiography are the investigations of relevance (outlined above) with the standards as indicated to be applied.

Angiography is therefore not commissioned by this guideline.

If there is a conflict between the results of the functional test and a recent angiography, the case should be considered individually. Licensing should not normally be granted, however, unless the coronary arteries are unobstructed or the stenosis is not flow-limiting. The LV ejection fraction must also be at least 40%.

Hypertrophic cardiomyopathy and exercise tolerance testing

For the purpose of assessing hypertrophic cardiomyopathy, this guideline considers an exercise tolerance test (see above) falling short of 9 minutes to be acceptable, provided:
- there is no obvious cardiac cause for stopping the test in under 9 minutes
- there is a rise of at least 25 mm Hg in systolic blood pressure during exercise testing
- all other requirements are met as outlined under hypertrophic cardiomyopathy.

Marfan syndrome: aortic root replacement

This guideline suggests revocation or refusal of a licence if there has been:
- emergency aortic root surgery
- elective aortic root surgery associated with complications or high-risk factors - for example, aortic root, valve and arch (including de-branching) surgery, external aortic support operation.

A bus or lorry licence for annual review may be issued in elective aortic root replacement surgery provided:
- surgery is successful without complications
- there is satisfactory regular specialist follow-up
- no evidence of suture-line aneurysm postoperatively and on 2-yearly MRI or CT surveillance following valve-sparing surgery for root replacement plus valve replacement.

Severe aortic stenosis

'Severe' is defined (European Society of Cardiology guidelines) as:
- aortic valve area - less than 1 cm2
  or
  - less than 0.6 cm2/m2 body surface area (BSA)
- mean aortic pressure gradient - greater than 40 mmHg
- maximum jet velocity - greater than 4 meters/second.

CHAPTER 3: DIABETES MELLITUS

INFORMATION PROVIDED TO DRIVERS

All drivers with diabetes must follow the information provided in 'Information for drivers with diabetes', at the end of this Chapter.

DIABETES MELLITUS

DIABETES MELLITUS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
INSULIN-TREATED DIABETES		
Impaired awareness of hypoglycaemia This guideline (based on the DVLA recommendation) defines impaired awareness of hypoglycaemia for Group 1 drivers as 'an inability to detect the onset of hypoglycaemia because of total absence of warning symptoms'. Group 2 drivers must have full awareness of hypoglycaemia. **Severe hypoglycaemia** 'Severe' is defined as hypoglycaemia requiring another person's assistance.		
	Must meet the criteria to drive and must notify the MEC. All the following criteria must be met for the MEC to license the person with insulin-treated diabetes for 1, 2 or 3 years: • adequate awareness of hypoglycaemia • no more than 1 episode of severe hypoglycaemia in the preceding 12 months • practises appropriate blood glucose monitoring as defined in the box below • not regarded as a likely risk to the public while driving • meets the visual standards for acuity and visual field (see Chapter 6, visual disorders).	Must meet the criteria to drive and must notify the MEC. All the following criteria must be met for the MEC to license the person with insulin-treated diabetes for 1 year (with annual review as indicated last below): • full awareness of hypoglycaemia • no episode of severe hypoglycaemia in the preceding 12 months • practises blood glucose monitoring with the regularity defined in the box below • must use a glucose meter with sufficient memory to store 3 months of readings as detailed below • demonstrates an understanding of the risks of hypoglycaemia • no disqualifying complications of diabetes (see later) that would mean a licence being refused or revoked, such as visual field defect (see Chapter 6, visual disorders).

SPECIAL CONSIDERATIONS FOR DIABETES

Group 1 recommendations and Group 2 requirements for insulin-treated drivers licensed on review

Based on the recommendations of the DVLA, this guideline defines the self-monitoring requirements for licensing as follows:

Group 1 car and motorcycle

- blood glucose testing no more than 2 hours before the start of the first journey and
- every 2 hours while driving
- applicants will be asked to sign an undertaking to comply with the directions of the healthcare professionals treating their diabetes and to report any significant change in their condition to the MEC immediately
- More frequent self-monitoring may be required with any greater risk of hypoglycaemia (physical activity altered meal routine).

Group 2 bus and lorry

- regular blood glucose testing - at least twice daily including on days when not driving **and**
- no more than 2 hours before the start of the first journey **and**
- every 2 hours while driving.

More frequent self-monitoring may be required with any greater risk of hypoglycaemia (physical activity altered meal routine), in which case a bus or lorry driver may be licensed if they use one or more glucose meters with memory functions to ensure **3 months of readings** that will be available for assessment.

This guideline recommends the following diabetes management requirements for insulin-treated Group 2 bus and lorry licensing

The following measures should be taken to ensure the requirements are met for licensing of insulin-treated Group 2 bus and lorry drivers:

- requires the applicant's usual doctor who provides diabetes care to undertake an annual examination including review of the previous 3 months of glucose meter readings
- arranges an examination to be undertaken every 12 months by an independent consultant specialist in diabetes if the examination by their usual doctor is satisfactory
- at the examination, the consultant will require sight of blood glucose self-monitoring records for the previous 3 months stored on the memory of a blood glucose meter the license application process cannot start until an applicant's condition has been stable for at least 1 month
- applicants will be asked to sign an undertaking to comply with the directions of the healthcare professionals treating their diabetes and to report any significant change in their condition to the MEC immediately.

Continuous glucose monitoring systems (CGMS)

Because these systems measure interstitial glucose, drivers must also monitor blood glucose levels as outlined immediately above.

IMPAIRED AWARENESS OF HYPOGLYCAEMIA – 'hypoglycaemia unawareness'		
	Must not drive and must notify the MEC. Driving may resume after a clinical report by a GP or consultant diabetes specialist confirms that hypoglycaemia awareness has been regained.	**Must not drive** and must notify he MEC. The licence should be refused or revoked. Refer to the requirements for insulin treated diabetes.
DIABETES COMPLICATIONS		
Visual complications – affecting visual acuity or visual field		
	May need to stop driving and notify the MEC. Refer to Chapter on visual disorders.	**Must not drive** and must notify the MEC. The licence should be refused or revoked. Refer to insulin-treated diabetes and Chapter on visual disorders.
Renal complications		
	May need to stop driving and notify the MEC. Refer to Chapter on renal and respiratory disorders.	May need to stop driving and notify the MEC. Refer to Chapter on renal and respiratory disorders.
Limb complications - including peripheral neuropathy		
Any complication such as peripheral neuropathy that means a driver must meet requirements (such as vehicle adaptations) for disabilities	May need to stop driving and notify the MEC. See Annexure on disabilities and vehicle adaptations. Limb problems or amputations are of themselves unlikely to prevent driving since they may be assisted by suitable vehicle adaptations. The ability to safely control a vehicle at all times is the essential requirement.	May need to stop driving and notify the MEC. See Annexure on disabilities and vehicle adaptations. Limb problems or amputations are of themselves unlikely to prevent driving since they may be assisted by suitable vehicle adaptations. The ability to safely control a vehicle at all times is the essential requirement.
TEMPORARY INSULIN TREATMENT - including gestational diabetes, post-myocardial infarction		
Trial participants for oral or inhaled insulin are also examples to be included as receiving temporary insulin treatment	May drive and need not notify the MEC, provided: • under medical supervision • not advised by clinician as at risk of disabling hypoglycaemia. May continue to drive but must notify the MEC if: • disabling hypoglycaemia occurs • treatment continues for more than 3 months - or in gestational diabetes, continues for 3 months after delivery.	Must meet the above standards.

DIABETES TREATED BY MEDICATION OTHER THAN INSULIN		
Managed by tablets carrying hypoglycaemia risk		
Including sulphonylureas and glinides	May drive and need not notify the MEC, provided: • no more than 1 episode of severe hypoglycaemia in the last 12 months • if needed, detection of hypoglycaemia is by appropriate blood glucose monitoring at times relevant to driving and clinical factors, including frequency of driving • under regular review. It is appropriate to offer self-monitoring of blood glucose at times relevant to driving to enable the detection of hypoglycaemia. If the above requirements and those set out in “Diabetes Considerations” are met, the MEC need not be informed. The MEC must be notified if clinical information indicates the agency may need to undertake medical enquiries.	May drive but must notify the MEC. All the following criteria must be met for the MEC to issue a licence for 1, 2 or 3 years: • no episode of severe hypoglycaemia in the last 12 months • full awareness of hypoglycaemia • regular self-monitoring of blood glucose - at least twice daily and at times relevant to driving i.e. no more than 2 hours before the start of the first journey and every 2 hours while driving • demonstrates an understanding of the risks of hypoglycaemia • has no disqualifying complications of diabetes that mean a licence will be refused or revoked, such as visual field defect.
Managed by other medication, including non-insulin injectables		
Excluding sulphonylureas and glinides	May drive and need not notify the MEC, provided the requirements set out in “Diabetes Considerations” are met and the driver is under regular medical review. May drive but must notify the MEC if clinical information indicates the agency may need to undertake medical enquiries.	May drive but must notify the MEC. The MEC may issue a licence if the requirements set out in “Diabetes Considerations” are met and the driver is under regular medical review. A licence is refused or revoked if relevant disqualifying complications have developed, such as diabetic retinopathy affecting visual acuity or visual fields. A short-term licence may be issued f diabetes complications have developed but the required medical standards have been met.

DIABETES MANAGED BY DIET/LIFESTYLE ALONE		
	May drive and need not notify the MEC. **Must not drive** and must notify the MEC if, for example: • relevant disqualifying complications develop such as diabetic retinopathy affecting visual acuity or visual fields • insulin treatment is required (see the requirements for insulin-treated diabetes.	May drive and need not notify the MEC. **Must not drive** and must notify the MEC if, for example: • relevant disqualifying complications develop such as diabetic retinopathy affecting visual acuity or visual fields • insulin treatment is required (see the requirements for insulin-treated diabetes.
HYPOGLYCAEMIA DUE TO OTHER CAUSES		
If there are episodes of severe hypoglycaemia from any cause other than diabetes treatment, driving must stop while the liability to episodes remains. Examples include hypoglycaemia post-bariatric surgery or in association with eating disorders, and the restriction applies for both car and motorcycle, and bus and lorry drivers.		
PANCREAS TRANSPLANT		
	May drive but must notify the MEC. Licensing is on the provision that the patient has no disqualifying condition. If the patient is on insulin, refer to the section on insulin-treated diabetes.	May drive but must notify the MEC. Licensing will require individual assessment. If the patient is on insulin, refer to the section on insulin-treated diabetes.
ISLET CELL TRANSPLANTATION		
	May drive but must notify the MEC. Licensing is on the provision that the patient has no disqualifying condition and is issued for a term requiring medical review. If the patient is on insulin, refer to the section on insulin-treated diabetes.	May drive but must notify the MEC. Licensing will require individual assessment. If the patient is on insulin, refer to the section on insulin-treated diabetes.

INFORMATION FOR DRIVERS OF CARS OR MOTORCYCLES WITH DIABETES TREATED BY TABLETS, DIET OR BOTH

Please keep this leaflet safe so you can refer to it in the future.

Some people with diabetes develop associated problems that may affect their driving.

What you need to tell your examining doctor about

By law you must tell us if any of the following apply:

- Previously on tablets, but this has changed to treatment with insulin (with or without tablets).
- you need laser treatment to both eyes or in the remaining eye if you have sight in one eye only.
- you have problems with vision in both eyes, or in the remaining eye if you have sight in one eye only. By law you must be able to read, with glasses or contact lenses, if necessary, a car number plate in good light at 20.5 metres (67 feet) or 20 metres (65 feet) where narrower characters 50mm wide are displayed.
- you develop any problems with the circulation or sensation in your legs or feet which make it necessary for you to drive certain types of vehicles only, for example automatic vehicles or vehicle a hand operated accelerator or brake.

HYPOGLYCAEMIA

The risk of hypoglycaemia (low blood sugar) is the main hazard to safe driving and can occur with diabetes treated with insulin or tablets or both. This may endanger your own life as well as that of other road users. Many of the accidents caused by hypoglycaemia are because drivers continue to drive even though they are experiencing warning signs of hypoglycaemia. If you experience warning signs of hypoglycaemia while driving, you must always stop as soon as safely possible – do not ignore the warning signs.

You must inform your doctor if:

- you suffer more than one episode of disabling hypoglycaemia (low blood sugar) within 12 months, or if you or your career feels you are at high risk of developing disabling hypoglycaemia.
- you develop impaired awareness of hypoglycaemia. (difficulty in recognising the warning symptoms of low blood sugar)
- you suffer disabling hypoglycaemia while driving.
- an existing medical condition gets worse or you develop any other condition that may affect you driving safely.

In the interests of road safety, you must be sure that you can safely control a motor vehicle at all times.

INFORMATION FOR DRIVERS OF CARS OR MOTORCYCLES WITH INSULIN TREATED DIABETES

Please keep this leaflet safe so you can refer to it in the future.
Drivers who have any form of diabetes treated with any insulin preparation must inform their doctor.

EYESIGHT

All drivers are required by law to read, in good daylight, a car number plate from a distance of 20 metres.

You must inform your doctor

- If you are unable to meet the number plate requirement.
- Of any problems that affect your field of vision.
- Of any conditions that affect both eyes or the remaining eye if you have sight in one eye only
- If you have had laser treatment to both eyes for retinopathy, or to the remaining eye if monocular.

HYPOGLYCAEMIA

The risk of hypoglycaemia (low blood sugar) is the main hazard to safe driving. This may endanger your own life as well as that of other road users. Many of the accidents caused by hypoglycaemia are because drivers continue to drive even though they are experiencing warning signs of hypoglycaemia. If you experience warning signs of hypoglycaemia whilst driving you must always stop as soon as safely possible – do not ignore the warning signs.

You must inform your doctor if:

- you suffer more than one episode of disabling hypoglycaemia (low blood sugar) within 12 months, or if you or your carer feels you are at high risk of developing disabling hypoglycaemia.
- you develop impaired awareness of hypoglycaemia. (difficulty in recognising the warning symptoms of low blood sugar)
- you suffer disabling hypoglycaemia while driving.
- an existing medical condition gets worse or you develop any other condition that may affect you driving safely.

LIMB PROBLEMS

Limb problems/amputations are unlikely to prevent driving. They may be overcome by either restricting driving to certain types of vehicles e.g. those with automatic transmission, or by adaptations such as hand operated accelerator/brake.

You must inform your doctor if you develop problems with either the nerves or the circulation in your legs which prevent safe use of the foot pedals.

Drivers with insulin treated diabetes are advised to take the following precautions:

- Do not drive if you feel hypoglycaemic or if your blood glucose is less than 4.0 mmol/l.
- If hypoglycaemia develops while driving stop the vehicle as soon as possible in a safe location, switch off the engine, remove the keys from the ignition and move from the driver's seat.
- Do not resume driving until 45 minutes after blood glucose has returned to normal. It takes up to 45 minutes for the brain to fully recover.
- Always keep an emergency supply of fast-acting carbohydrate such as glucose tablets or sweets within easy reach in the vehicle.

Carry your glucose meter and blood glucose strips with you. Check blood glucose before driving (even on short journeys) and test regularly (every 2 hours) on long journeys. If blood glucose is 5.0mmol/l or less, take a snack before driving.
Carry personal identification indicating that you have diabetes in case of injury in a road traffic accident.
Particular care should be taken during changes of insulin regimens, changes of lifestyle, exercise, travel and pregnancy.

Take regular meals, snacks and rest periods on long journeys. Always avoid alcohol.

CHAPTER 4: PSYCHIATRIC DISORDERS

PSYCHIATRIC DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
ANXIETY OR DEPRESSION - mild to moderate		
Without significant memory or concentration problems, agitation, behavioural disturbance or suicidal thoughts	May drive and need not notify the MEC. See "Important notes concerning psychiatric disorders" below for medication considerations relevant to driving.	May drive and need not notify the MEC, provided the illness is short-lived. For other cases, refer to 'severe' below. See "Important notes concerning psychiatric disorders" below for medication considerations relevant to driving.
PERSISTENT ALCOHOL AND/OR DRUG MISUSE OR DEPENDENCE		
See Chapter on Alcohol and/or Drug Misuse or Dependence. If psychiatric illness has been associated with substance misuse, continued misuse contraindicates driving and licensing		
SEVERE ANXIETY OR DEPRESSION		
Note: effects of severe illness are of greater importance for their relevance to driving than medication - but see "Important notes concerning psychiatric disorders" for additional considerations, on medication.		
Significant memory or concentration problems, agitation, behavioural disturbance or suicidal thoughts	**Must not drive** and must notify the MEC. Licensing will depend on the outcome of medical enquiries, and the MEC will require a period of stability. Particular danger would be posed by those who may attempt suicide at the wheel.	**Must not drive** and must notify the MEC. Licensing will depend on the outcome of medical enquiries, and the MEC will require a period of stability. Particular danger would be posed by those who may attempt suicide at the wheel. Licensing may be granted after 6 months if: • the person has been well and stable and • is not taking medication with side effects that would affect alertness or concentration. The adjudicating practitioner may need reports from a specialist in psychiatry. Driving is usually permitted after 6 months if the anxiety or depression has been long-standing but symptoms are under control and if maintenance on a dosage of psychotropic medication does not cause impairment.

PSYCHIATRIC DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
ACUTE PSYCHOTIC DISORDER		
Persistent alcohol and/or drug misuse or dependence; see Chapter on Alcohol and/or Drug Misuse or Dependence. If psychiatric illness has been associated with substance misuse, continued misuse contraindicates driving and licensing		
Without significant memory or concentration problems, agitation, behavioural disturbance or suicidal thoughts	**Must not drive** during acute illness and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 3 months • adheres to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject to a suitable specialist report being favourable. Drivers with a history of instability and/or poor engagement with treatment will be required not to drive for a longer period before any relicensing.	**Must not drive** during acute illness and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 12 months • adheres to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject of a favourable report from a specialist in psychiatry. The minimum effective antipsychotic dosage should be sought, in line with good practice. Drug tolerability should be optimal and not associated with any deficits that might impair driving, such as to alertness, concentration or motor performance. Established illness with a history suggesting a likelihood of relapse: the risk of this needs to be considered low. The adjudicating practitioner will normally require the report of a specialist in psychiatry that specifically addresses the above issues as relevant to driving before it may grant a licence.

PSYCHIATRIC DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
HYPOMANIA OR MANIA		
Persistent alcohol and/or drug misuse or dependence; see Chapter on Alcohol and/or Drug Misuse or Dependence. If psychiatric illness has been associated with substance misuse, continued misuse contraindicates driving and licensing **For Group 2 bus and lorry driving, in both stable and unstable conditions:** • the minimum effective dosage of any antipsychotic medication should be sought, in line with good practice. Drug tolerability should be optimal and not associated with any deficits that might impair driving, such as to alertness, concentration or motor performance • established illness with a history to suggest a likelihood of relapse: the risk of this must be considered low.		
Stable There must be no driving during any acute illness.	**Must not drive** and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 3 months • adheres to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject to a suitable specialist report being favourable.	**Must not drive** and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 12 months • adheres to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject of a favourable report from a specialist in psychiatry. See note above for both stable and unstable conditions.
Unstable: 4 or more episodes of significant mood swing in the previous 12 months. Particular danger would be posed by driving if there is hypomania or mania with repeated change of mood. In all cases, there must be no driving during any acute illness.	**Must not drive** and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 6 months • adheres to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject to a suitable specialist report being favourable.	**Must not drive** and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 12 months • adheres to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject of a favourable report from a specialist in psychiatry. See note above for both stable and unstable conditions.

PSYCHIATRIC DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
SCHIZOPHRENIA - and other chronic relapsing/remitting disorders		
Persistent alcohol and/or drug misuse or dependence; see Chapter 5. If psychiatric illness has been associated with substance misuse, continued misuse contraindicates driving and licensing		
There must be no driving during any acute illness Driving would be particularly dangerous if psychotic symptoms relate to other road users	**Must not drive** and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for least 3 months • adheres adequately to any agreed treatment plan regained insight • free from any medication effects that would impair driving • subject to a suitable specialist report being favourable. Continuing symptoms: even with limited insight, these do not necessarily preclude licensing. Symptoms should be unlikely to cause significant concentration problems, memory impairment or distraction while driving.	**Must not drive** and must notify the MEC. Licensing may be considered if all of these conditions are met: • remained well and stable for at least 12 months • adheres strictly to any agreed treatment plan • regained insight • free from any medication effects that would impair driving • subject of a favourable report from a specialist in psychiatry. Further: • the minimum effective dosage of any antipsychotic medication should be sought, in line with good practice. Drug tolerability should be optimal and not associated with any deficits that might impair driving, such as to alertness, concentration or motor performance • established illness with a history suggesting a likelihood of relapse: the risk of this must be considered low.
PERVASIVE DEVELOPMENTAL DISORDERS AND ADHD		
Any pervasive disorder including attention deficit hyperactivity disorder (ADHD), Asperger's syndrome, autism spectrum disorders (ASD) and severe communication disorders Guidance relating to learning disability is below.	May be able to drive but must notify the MEC. A diagnosis of any of these conditions is not in itself a bar to licensing. The adjudicating practitioner should consider factors such as the level of: • impulsivity • awareness of impacts of behaviours on self or others.	May be able to drive but must notify the MEC. Licensing should be considered individually following medical enquiries. Licensing may be granted if continuing symptoms are minor.

PSYCHIATRIC DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
MILD COGNITIVE IMPAIRMENT (NOT MILD DEMENTIA) **See section on Cognitive Impairment in Miscellaneous Conditions**		
No likely driving impairment	May drive and need not notify the MEC.	May drive and need not notify the MEC.
Possible driving impairment	**Must not drive** and must notify the MEC. Licensing will be considered individually following medical enquiries.	**Must not drive** and must notify the MEC. Licensing will be considered individually following medical enquiries.
DEMENTIA - and/or any organic syndrome affecting cognitive functioning **See section on Cognitive Impairment in Miscellaneous Conditions**		
	May be able to drive but must notify the MEC. It is difficult to assess driving ability in people with dementia. This guideline acknowledges that there are varied presentations and rates of progression, and the decision on licensing is usually based on medical reports. Considerations include: • poor short-term memory disorientation, and lack of insight and judgement almost certainly mean no fitness to drive • disorders of attention cause impairment • in early dementia, when sufficient skills are retained and progression is slow, a licence may be issued subject to annual review. A formal driving assessment may be necessary (see Annexure 7).	**Must not drive** and must notify the MEC. Licensing should be refused or revoked.
LEARNING DISABILITY		
Definition of severe learning disability followed by the MEC Significantly below average general intellectual functioning, accompanied by severe limitations in adaptive functioning in at least two of these areas: communication self-care home-living social/interpersonal skills self-direction functional academic skills work leisure health and safety		

PSYCHIATRIC DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Mild learning disability Learning *difficulty* is not included. Dyslexia, dyscalculia, and so on, are no bar to ordinary Group 1 licences being awarded after successful driving tests, and the MEC need not be informed.	May be able to drive but must notify the MEC. Licensing will be granted provided there are no other relevant problems. The adjudicating practitioner may require an assessment of adequate functional ability at the wheel.	**Must not drive** and must notify the MEC. Licensing may be granted provided there are only minor degrees of learning disability and the condition is stable with no medical or psychiatric complications.
Severe learning disability	**Must not drive** and must notify the MEC. Licensing should be refused.	**Must not drive** and must notify the MEC. Licensing will be refused.
BEHAVIOURAL DISORDERS - including post-head injury, non-epileptic seizures		
Severe disturbance from syndrome post-head injury, non-epileptic seizure disorder (NESD), for example	**Must not drive** and must notify the MEC. Licensing should be refused or revoked if there is serious disturbance - for example, violent behaviour or alcohol abuse likely to be a source of danger at the wheel. Licensing may be granted after medical reports confirm satisfactory control of behavioural disturbances.	**Must not drive** and must notify the MEC. Licensing should be refused or revoked if there is serious disturbance - for example, violent behaviour or alcohol abuse likely to be a source of danger at the wheel. Licensing may be granted if a specialist confirms stability.
PERSONALITY DISORDERS		
Severe disturbance	May be able to drive but must notify the MEC. Licensing should be refused or revoked if there is likely to be danger at the wheel. Licensing may be granted if behavioural disturbance is: • not related to driving or • not likely to adversely affect driving and road safety.	**Must not drive** and must notify the MEC. Licensing should be refused or revoked if there is likely to be danger at the wheel. • Licensing may be given consideration if a specialist confirms stability.

SPECIAL CONSIDERATIONS FOR PSYCHIATRIC DISORDERS

All mental health symptoms must be considered

Any psychiatric condition that does not fit neatly into the classifications in this Chapter will need to be reported to the MEC if it is causing or is considered likely to cause symptoms that would affect driving.

Such symptoms include, for example:

- any impairment of consciousness or awareness
- any increased liability to distraction
- or any other symptoms affecting the safe operation of the vehicle.

The patient should be advised to declare both the condition and the symptoms of concern.

It is the relationship of symptoms to driving that is of importance.

The Third Driving Licence Directive 2006/126/EC requires member states to set minimum medical standards of fitness to drive and sets out the requirements for mental health in broad terms:

- the laws make a clear distinction between the standards for Group 1 car and motorcycle, and Group 2 bus and lorry licensing. The standards for the latter are more stringent because of the size of the vehicles and the greater amounts of time spent at the wheel by occupational drivers
- severe mental disorder is a prescribed disability for the purposes of section 92 of the Road Traffic Act 1988. Regulations define “severe mental disorder” as including mental illness, arrested or incomplete development of the mind, psychopathic disorder, and severe impairment of intelligence or social functioning
- the laws require that standards of fitness to drive must reflect, not only the need for an improvement in the mental state, but also a period of stability, such that the risk of relapse can be assessed should the patient fail to recognise any deterioration
- misuse of or dependence on alcohol or drugs are cases that require consideration of the standards in Chapter on Alcohol and/or Drug Misuse or Dependence in addition to those for psychiatric disorders in this Chapter.

Medications

Section 65 of the National Road Traffic Act does not differentiate between illicit and prescribed drugs. Any person driving or attempting to drive on a public highway or other public place while unfit due to any drug is liable for prosecution.

- All drugs with an action on the central nervous system can impair alertness, concentration and driving performance.
- This is of particular relevance at the initiation of treatment, or soon after, and also when dosage is being increased. Anyone who is adversely affected must not drive

It should be taken into account when planning the treatment of a patient who is a professional driver that the older tricyclic antidepressants can have pronounced anticholinergic and antihistaminic effects, which may impair driving, whereas the more recently developed antidepressants may have fewer such effects.

- Antipsychotic drugs, including depot preparations, can cause motor or extrapyramidal effects as well as sedation or poor concentration. These effects, either alone or in combination, may be sufficient to impair driving, and careful clinical assessment is required.
- The epileptogenic potential of psychotropic medication should be given particular consideration in patients who are professional drivers.
- Benzodiazepines are the psychotropic medications most likely to impair driving performance – the long-acting compounds in particular – and alcohol will potentiate effects.
- Doctors have a duty of care to advise their patients of the potential dangers of adverse effects from medications and their interactions with other substances, especially alcohol.

Electroconvulsive therapy

The likely severity of the underlying condition requiring electroconvulsive therapy (ECT)means the driver should be advised that they must notify the MEC.

Electroconvulsive therapy is usually employed in the context of an acute intervention for a severe depressive illness or, less commonly, as longer-term maintenance therapy.

In both courses, it is the severity of the underlying mental health condition that is of prime importance to the determination of whether driving may be permitted.

A seizure induced by ECT is regarded as provoked for the purposes of fitness to drive and is not a bar to licensing and driving – under both Group 1 car and motorcycle, and Group 2 bus and lorry.

The concerns for driving are:

- severity of the underlying illness requiring ECT treatment
- potential cognitive or memory disturbances associated with both the underlying depression and the ECT therapy.

Driving must stop during an acute course of treatment with ECT and is not permitted until the relevant medical standards and observation periods associated with underlying conditions have been met, as set out in Chapter 4 and with respect to any other mental health symptoms or psychiatric conditions that do not fit neatly into classifications.

Again, this guidance must stress that the underlying condition and response to treatment are what determine licensing and driving.

Where ECT is used as maintenance treatment with a single treatment sometimes given weeks apart there may be minimal or no symptoms. This would not affect driving or licensing providing there is no relapse of the underlying condition.

Driving must stop for 48 hours following the administration of an anaesthetic agent.

Confidentiality

When a patient has a condition which makes driving unsafe and the patient is either unable to appreciate this, or refuses to cease driving, the Ethical Regulations of the Health Professions' Act advise breaking confidentiality and informing the MEC.

Patients under The Mental Health Act (18 of 1973)

Before resuming driving, drivers must be able to satisfy the standards of fitness for their respective conditions and be free from any effects of medication, which will affect driving adversely.

CHAPTER 5: DRUG AND ALCOHOL MISUSE AND DEPENDENCY

DRUG OR ALCOHOL MISUSE OR DEPENDENCE		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
ALCOHOL MISUSE		
Guide to the definition of misuse There is no single definition to embrace all the variables within alcohol misuse - but this guideline offers the following: "A state that causes, because of consumption of alcohol, disturbance of behaviour, related disease or other consequences likely to cause the patient, their family or society present or future harm and that may or may not be associated with dependence." The World Health Organization's classification (ICD-10) code F10.1 is relevant.		
Persistent alcohol misuse confirmed by medical enquiry and/or evidence of otherwise unexplained abnormal blood markers	**Must not drive** and must notify the MEC. Licence should be refused or revoked until after: • a minimum of 6 months of controlled drinking or abstinence, and • normalisation of blood parameters. The patient should be referred for advice from medical or other sources during the period of no driving.	**Must not drive** and must notify the MEC. Licence should be refused or revoked until after: • a minimum of 1 year of controlled drinking or abstinence, and • normalisation of blood parameters. The patient should be referred for advice from medical or other sources during the period of no driving.
ALCOHOL DEPENDENCE		
Guide to the definition of misuse There is no single definition to embrace all the variables within alcohol misuse - but this guideline offers the following: "*A cluster of behavioural, cognitive and physiological phenomena that develop after repeated alcohol use, including:* • *a strong desire to take alcohol* • *difficulties in controlling its use* • *persistent use in spite of harmful consequences* • *and with evidence of increased tolerance and sometimes a physical withdrawal state.*" Indicators may include any history of withdrawal symptoms, tolerance, detoxification or alcohol-related seizures The World Health Organization's classification (ICD-10) code F10.2 is relevant.		

DRUG OR ALCOHOL MISUSE OR DEPENDENCE		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Dependence confirmed by medical enquiry. Also refer to alcohol related seizure below	**Must not drive** and must notify the MEC. Licence should be refused or revoked until after a minimum of 1 year free of alcohol problems. Abstinence is usually required, with normalised blood parameters if relevant.	**Must not drive** and must notify the MEC. Licence should be refused or revoked in all cases of any history of alcohol dependence within the past 3 years.
	For both driving groups: • licensing will require satisfactory medical reports from a doctor • the adjudicating practitioner may need to arrange independent medical examination and blood tests • referral to and the support of a consultant specialist may be necessary.	
ALCOHOL-RELATED DISORDERS		
Examples ■ hepatic cirrhosis with neuropsychiatric impairment ■ alcohol	**Must not drive** and must notify the MEC. Licence should be refused or revoked until: • recovery is satisfactory • any other relevant medical standards for fitness to drive are satisfied (for example, Chapter 4, psychiatric disorders).	**Must not drive** and must notify the MEC. Licence should be refused or revoked permanently.
ALCOHOL-RELATED SEIZURE		
Seizures associated with alcohol use are not considered provoked in terms of licensing. If there is more than one seizure, the epilepsy guidelines apply to drivers in both groups.		

DRUG OR ALCOHOL MISUSE OR DEPENDENCE		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Solitary seizure	**Must not drive** and must notify the MEC. Licence will be refused or revoked for a minimum of 6 months after the seizure. Subsequent licensing requires satisfaction of the fitness standards elsewhere in this chapter whenever there is a background of alcohol misuse and/or dependence to the seizure, and will include requirements for: ■ an appropriate period free from persistent alcohol misuse and/or dependence ■ independent medical assessment. Blood analysis and consultant specialist reports usually necessary.	**Must not drive** and must notify the MEC. Licence will be refused or revoked for a minimum of 5 years after the seizure. Subsequent licensing requires: ■ no underlying cerebral structural abnormality ■ no epilepsy medication for at least 5 years ■ maintained abstinence from alcohol if previously dependent ■ review by a specialist in addiction and a specialist in neurology.

DRUG OR ALCOHOL MISUSE OR DEPENDENCE		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**

HIGH-RISK OFFENDERS

Definition

This definition is not a South African standard; it is provided in this document as a guideline. Drawing from the actions prescribed by the DVLA, this guideline defines **high-risk offenders** as drivers convicted of the following:

- one disqualification for driving or being in charge of a vehicle when the level of alcohol in the body equalled or exceeded either one of these measures:
  - 87.5 mg per 100 mL of **breath**
  - 200.0 mg per 100 mL of **blood**
  - 267.5 mg per 100 mL of **urine**
- two disqualifications within the space of 10 years for drink-driving or being in charge of a vehicle while under the influence of alcohol
- one disqualification for refusing or failing to supply a specimen for alcohol analysis
- one disqualification for refusing to give permission for a laboratory test of a specimen of blood for alcohol analysis.

For high-risk offenders so defined, an independent medical examination should be arranged for an application for licence reinstatement. The assessment should include:

- questionnaire
- a serum CDT assay
- any further testing indicated.

If a licence is awarded, the normal licence is restored for Group 1 car and motorcycle driving. Consideration may be given to a Group 2 licence.

If a high-risk offender has a previous history of alcohol dependence or persistent misuse but has satisfactory examination and blood tests, a short period licence is issued for ordinary and vocational entitlement but is dependent on their ability to meet the standards as specified.

A high-risk offender found to have a current history of alcohol misuse or dependence and/or unexplained abnormal blood test results should have the application refused.

DRUG MISUSE OR DEPENDENCE

The relevant classification codes for drug misuse or dependence are World Health Organization F11 to F19 inclusive (ICD-10).

The below requirements apply to cases of single-substance misuse or dependence, whereas multiple problems - including with alcohol misuse or dependence - are not compatible with fitness to drive or licensing consideration, in both groups of drivers.

DRUG OR ALCOHOL MISUSE OR DEPENDENCE		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Drug group • cannabis • amphetamines (but see methamphetamine drug group Y below) • 'ecstasy' (MDMA) • ketamine • other psychoactive substances, including LSD and hallucinogens	**Must not drive** and must notify the MEC with persistent misuse or dependence. Medical enquiry confirming the problem should result in licence being refused or revoked: • for a minimum of 6 months, which must be free of misuse < dependence. Except in the case of ketamine: • for a minimum of 6 months drug-free after misuse, or • for a minimum of 12 months must be free of dependence • and may require an independent consultant or specialist assessment and urine screen arranged by the adjudicating practitioner.	**Must not drive** and must notify the MEC with persistent misuse or dependence. Medical enquiry confirming the problem should result in licence being refused or revoked: • for a minimum of 1 year, which must be free of misuse or dependence. Relicensing will usually require an independent medical assessment and urine screen arranged by the adjudicating practitioner.
Note on methadone Full compliance with an oral methadone maintenance programme supervised by a consultant specialist may allow licensing subject to favourable assessment and, usually, annual medical review. Similar criteria may apply for an oral buprenorphine programme. There should be no evidence of continued use of other substances, including cannabis.		
Drug group • heroin • morphine • methadone (see note on compliance) • cocaine • methamphetamine **Benzodiazepines** Note on therapy versus misuse below.	**Must not drive** and must notify the MEC with persistent misuse or dependence. Medical enquiry confirming the problem will result in licence being refused or revoked for a minimum of 1 year, which must be free of misuse or dependence. Relicensing may require an independent medical assessment and urine screen arranged by the adjudicating practitioner.	**Must not drive** and must notify the MEC persistent misuse or dependence. Medical enquiry confirming the problem will result in licence being refused or revoked for a minimum of 3 years, which must be free of misuse or dependence. Relicensing will usually require an independent medical assessment and urine screen arranged by the adjudicating practitioner.

DRUG OR ALCOHOL MISUSE OR DEPENDENCE		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
Note on benzodiazepines The non-prescribed use of these agents and/or the use of a supra-therapeutic dosage outside SA National Formulary (SANF) guidelines constitutes misuse or dependence for licensing purposes - whether in a programme of substance withdrawal or maintenance, or otherwise. The prescribed use of these drugs at the therapeutic doses listed in the SANF, without evidence of impairment, does not amount to misuse or dependence for licensing purposes (albeit clinical dependence may exist).		
SEIZURE ASSOCIATED WITH DRUG USE		
Seizures associated with drug use are not considered provoked in terms of licensing. If there is more than one seizure, the epilepsy guidelines apply to drivers in both groups (see section on epilepsy).		
Solitary seizure	**Must not drive** and must notify the MEC. Licence will be refused or revoked for a minimum of 6 months after the seizure. Subsequent licensing requires satisfaction of the fitness standards elsewhere in this chapter whenever there is a background of substance misuse or dependence to the seizure, and will include requirements for: • an appropriate period free from persistent alcohol misuse and/or dependence • independent medical assessment • usually, urine analysis and consultant specialist reports.	**Must not drive** and must notify the MEC. Licence will be refused or revoked for a minimum of 5 years after the seizure. Subsequent licensing requires: • no underlying cerebral structural abnormality • no epilepsy medication for at least 5 years • maintained abstinence from alcohol if previously dependent • review by a specialist in addiction and a specialist in neurology.
Relicensed drivers with former drug misuse or dependence should be advised as part of their aftercare that recurrence would mean they must stop driving and must notify the MEC.		

SPECIAL CONSIDERATIONS FOR SUBSTANCE ABUSE

Alcohol & drug abuse testing requires a detailed guideline on its own, so the following should be regarded as a brief summary for the purpose of this guideline.

Notes on testing and test interpretation:

- Markers of excessive alcohol consumption include:
    - GGT levels: (**NB: if any doubt, confirm with CDT – see below**)
        - Greater than normal, but less than twice normal = borderline, and employee should be counselled.
        - Greater than twice normal = excessive and driving should be suspended.
- If there is a clear history of excessive consumption, then any elevation of GGT is sufficient to be regarded as suspicious. The higher the elevation, the greater the concern. Whilst levels that are marginally elevated may be "watched", elevations beyond 1.5x normal require further evaluation and appropriate action.
- An elevated GGT should not be automatically regarded as positive for alcohol consumption. It can be elevated by other circumstances and has a relatively low specificity as a test for excessive alcohol consumption. It should be confirmed by a CDT test, (and, if necessary, AST, ALT & MCV) unless clinical findings are already conclusive.
- Given the problem that CDT may be negative in heavy drinkers, an elevated GGT in the presence of strong supportive evidence from the interview & examination, plus the AST, ALT and MCV, could be deemed to be positive, despite a negative CDT.
- AST and ALT are useful markers of liver damage, providing supplementary information on the degree of alcohol abuse. In alcohol-related liver injury, the AST: ALT ratio frequently is > 2.
- A cannabis or other drug result that is "positive" is sufficient to be regarded as positive, even if the employee alleges that he (she) was just in the presence of others who were smoking ("passive smoking"). Note that a positive test for drugs does NOT mean that the person is intoxicated; it just means that he is a user. Actions taken for a positive drugs test should be considered accordingly (incapacity versus disciplinary action).
- The current internationally accepted philosophy for the detection of drugs of abuse involves a two-stage testing procedure:
    - A **Screening Test**: This is the general term used for the examination of samples for the presumed presence of one or several drugs. These tests typically involve immuno-chromatographic or enzymatic colour-strip testing. Although the screening tests are usually easy to perform, the results can at best be regarded as preliminary since:
        - These tests are well known to be subject to interference from other similar (and often legal) compounds, which may lead to false accusation of an innocent individual
        - These tests can be masked by adulterants taken purposefully, which may lead to a guilty drug abuser passing undetected.
        - It is therefore unacceptable to take any action, especially legal/disciplinary action, based solely on a screening result.
    - A **Confirmatory Test**: All presumptive positive screening results need to be confirmed by a laboratory specialising in drugs of abuse testing to provide a conclusive test result that allows for legal/ disciplinary decisions. These typically use Liquid Chromatography Mass Spectrometry (LC-MS) or Gas Chromatography Mass Spectrometry (GC-MS), which are the gold standards for confirmation of presumptive positive screening tests. This procedure is highly sensitive and specific, and not subjected to interferences. If employed in a scientifically correct manner, LC-MS or the GC-MS provides a result that can be regarded as a "fingerprint" of an illicit compound in urine.

CHAPTER 6: VISUAL DISORDERS

The NRTA requires that a licence holder or applicant be considered as suffering a **prescribed impairment** if unable to meet the eyesight requirements.

VISUAL DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
CATARACT		
	Often safe to drive and may not need to notify the MEC. The minimum standards set out for all drivers above must be met. Glare may counter an ability to pass the Snellen test (of the minimum requirements) even when cataracts allow apparently appropriate acuities.	Often safe to drive and may not need to notify the MEC. The minimum standards for Group 2 drivers set out above must be met. Glare may counter an ability to pass the Snellen test (of the minimum requirements) even when cataracts allow apparently appropriate acuities.
MONOCULAR VISION		
	Must not drive and may need to notify the MEC. For complete loss of vision in one eye (cases where there is any light perception in the affected eye are not considered monocular), the driver: • must meet the same visual acuity and visual field standards as binocular drivers • may drive only after clinical advice of successful adaptation to the condition. Only those monocular people who fail to meet these requirements are required to notify the MEC.	**Must not drive** and must notify the MEC. The law bars licensing if in one eye there is: • complete loss of vision or • corrected acuity falls below Snellen 6/9
VISUAL FIELD DEFECTS		
Disorders such as: • bilateral glaucoma • bilateral retinopathy • retinitis pigmentosa and others that produce a field defect, including partial or complete homonymous hemianopia/ quadrantanopia or complete bitemporal hemianopia.	Must notify the MEC. The national recommendations for visual field would need to be met.	Must notify the MEC. The national recommendations for visual field would need to be met.

VISUAL DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
DIPLOPIA		
	Must not drive and must notify the MEC. Driving may be licensed after the adjudicating practitioner has received confirmation that the diplopia is controlled, for example by: • glasses or • a patch for which there is an undertaking to use it while driving (but note the requirements for monocular vision above). Exceptionally, a stable uncorrected diplopia endured for 6 months or more may be licensable with the support a consultant specialist's report of satisfactory functional adaptation.	**Must not drive** and must notify the MEC. Licensing will be refused or revoked permanently in cases of insuperable diplopia. Patching is not acceptable for licensing.
NIGHT BLINDNESS		
	Must not drive and must notify the MEC. Driving may be licensed after individual consideration, provided the standards for visual acuity and field above are met.	**Must not drive** and must notify the MEC. Driving may be licensed after individual consideration, provided the standards for visual acuity and field above are met.
COLOUR BLINDNESS		
	May drive and need not notify the MEC.	May drive and need not notify the MEC.
BLEPHAROSPASM		
	Must not drive and must notify the MEC. Driving is not usually licensed if the condition is severe and affects vision, even if treated. A consultant specialist's opinion will be sought by the MEC. Driving may be licensed if the condition is mild, subject to return of satisfactory medical reports. Control of mild blepharo spasm with botulinum toxin may lead to licensing if the treatment does not produce side effects that are otherwise disqualifying, such as uncontrollable diplopia. The MEC should be informed of any change - and any deterioration in condition must be notified.	**Must not drive** and must notify the MEC. Driving is not usually licensed if the condition is severe and affects vision, even if treated. A consultant specialist's opinion will be sought by the MEC. Driving may be licensed if the condition is mild, subject to return of satisfactory medical reports. Control of mild blepharo spasm with botulinum toxin may lead to licensing if the treatment does not produce side effects that are otherwise disqualifying, such as uncontrollable diplopia. The MEC should be informed of any change - and any deterioration in condition must be notified.

SPECIAL CONSIDERATIONS FOR VISUAL DISORDERS

Minimum standard of visual acuity (all drivers).

The basis of the legal standard is that it equates to the following:

> The visual acuity must be at least, according to the Snellen rating, a minimum visual acuity, with or without refractive correction, of 6/12 (20/40) for each eye, or where the visual acuity of one eye is less than 6/12 (20/40) or where one eye of the person concerned is blind, a minimum visual acuity for the other eye of 6/9 (20/30).

If unable to meet this standard, the driver must not drive and the licence must be refused or revoked.

The law also requires all drivers to have a minimum **field of vision**, as set out below.

The legal standard in South Africa is based on category of vehicle, so the lesser standard is prescribed for drivers of categories code A1, A, B or EB vehicles (motor cycles and old code 08) (equivalent of SASOM Group 1), and the higher standard is prescribed for drivers of categories code C1, C, EC1 or EC vehicles (old code 10+) (equivalent of SASOM Group 2 or 3).

Higher standard of visual acuity (bus and lorry drivers)

Group 2 bus and lorry drivers require a higher standard of visual acuity:

- a visual acuity of at least, according to the Snellen rating, a minimum visual acuity, with or without refractive correction, of 6/9 (20/30) for each eye

There is no legal prescription as to the **type of equipment** required for the performance of visual acuity testing. Whilst the traffic authorities make use of specialised testing equipment, the SASOM recommendation is that a simple Snellen wall chart is entirely acceptable for testing far acuity. Other tests are covered in detail in the SASOM Guideline for vision testing.

Minimum standard for field of vision (all drivers).

The minimum field of vision for Group 1 driving is defined in the legislation (NRTA regulations: regulation 102(1)(a)(ii)):

"a minimum visual field of 70 degrees temporal, with or without refractive correction, in respect of each eye, or where the minimum visual field in respect of one eye is less than 70 degrees temporal, or where one eye is blind, a minimum total horizontal visual field of at least 115 degrees with or without refractive correction"

This means that homonymous or bitemporal defects that come close to fixation, whether hemianopic or quadrantanopic, are not usually acceptable for driving.

For the purposes of general clinical practice, the confrontation test is regarded as adequate for visual field assessment in South Africa.

However, should a more detailed assessment be required, in terms of this guideline, it:

- requires the method to be a binocular Esterman field test
- may request monocular full field charts in specific conditions
- exceptionally, may consider a Goldmann perimetry assessment carried out to strict criteria.

SASOM advises that, for an Esterman binocular chart to be considered reliable for licensing, the false-positive score must be no more than 20%. When assessing monocular charts and Goldmann perimetry, fixation accuracy will also be considered.

Defect affecting central area only (Esterman within 20-degree radius of fixation)

Only for the purposes of licensing Group 1 car and motorcycle driving:

- the following are generally regarded as **acceptable** central loss
  - scattered single missed points
  - a single cluster of up to 3 adjoining points.
- the following are generally regarded as **unacceptable** ('significant') central loss:
  - a cluster of 4 or more adjoining points that is either wholly or partly within the central 20° area
  - loss consisting of both a single cluster of 3 adjoining missed points up to and including 20° from fixation, and any additional separate missed points within the central 20° area
  - any central loss that is an extension of hemianopia or quadrantanopia of size greater than 3 missed points.

Defect affecting the peripheral areas - width assessment

Only for the purposes of licensing Group 1 car and motorcycle driving:

- the following will be disregarded when assessing the width of field
  - a cluster of up to 3 adjoining missed points, unattached to any other area of defect, lying on or across the horizontal meridian
  - a vertical defect of only single-point width but of any length, unattached to any other area of defect, which touches or cuts through the horizontal meridian.

Higher standards of field of vision (NRTA regulations: regulation 101(2)(b)(ii)):

The minimum standard for the field of vision is defined by the legislation for Group 2 bus and lorry licensing as a minimum visual field of 70 degrees temporal in respect of each eye, with or without refractive correction.

However, should a more detailed assessment be required, in terms of this guideline, the minimum standard for the field of vision for Group 2 bus and lorry licensing could be considered as follows:

- a measurement of at least 160° on the horizontal plane
- extensions of at least 70° left and at least 70° right
- extensions of at least 30° above and at least 30° below the horizontal plane
- no significant defect within 70° left and 70° right between 30° up and 30° down (it would be acceptable to have a total of up to 3 missed points, which may or may not be contiguous*)
- no defect is present within a radius of the central 30°
- no other impairment of visual function, including no glare sensitivity, contrast sensitivity or impairment of twilight vision.

(*Points tested in the ‘letterbox’ outside the central radius of 30° from fixation.)

CHAPTER 7: RENAL AND RESPIRATORY DISORDERS

RENAL AND RESPIRATORY DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
CHRONIC RENAL FAILURE		
Continuous ambulatory peritoneal dialysis (CAPD) or haemodialysis	May drive and need not notify the MEC if there are no complications. No restriction to the normal licence unless it must be refused or revoked due to: • severe electrolyte disturbance or • significant symptoms, including the examples of: ○ sudden disabling attacks of giddiness or fainting ○ impaired psychomotor or cognitive function.	Must notify the MEC. Individual licensing will be assessed against the presence of any: • severe electrolyte disturbance or • significant symptoms, including the examples of: ○ sudden disabling attacks of giddiness or fainting • impaired psychomotor or cognitive function.
ALL OTHER RENAL DISORDERS		
	May drive and need not notify the MEC unless the condition is associated with a disability likely to affect driving.	May drive and need not notify the MEC unless the condition is associated with a disability or any significant symptoms likely to affect driving.
DISORDERS OF RESPIRATORY FUNCTION – including asthma and COPD		
	May drive and need not notify the MEC unless any complications are associated with: • cough syncope • disabling giddiness • fainting or • loss of consciousness. Such sequelae need reference to requirements under Transient loss of consciousness' (from Chapter 1, neurological disorders). See also cough syncope in Chapter 1.	May drive and need not notify the MEC unless any complications are associated with: • cough syncope • disabling giddiness • fainting or • loss of consciousness. Such sequelae need reference to requirements under Transient loss of consciousness' (from Chapter 1, neurological disorders). See also cough syncope in Chapter 1.
OBSTRUCTIVE SLEEP APNOEA		
Refer to guidance concerning this condition under 'excessive sleepiness' in Chapter 8, miscellaneous conditions.		
PRIMARY LUNG CARCINOMA		

RENAL AND RESPIRATORY DISORDERS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
	May drive and need not notify the MEC unless there is cerebral metastasis (refer to malignant brain tumours of Chapter 1, neurological disorders).	**Must not drive** and must notify the MEC. Only those drivers with non-small cell lung cancer staged T1 NO MO may be considered individually for licensing. Other lung tumours require no driving for 1 year following definitive treatment. Subsequent licensing requires: • satisfactory treatment success • no brain scan evidence of intracranial metastases (refer to malignant brain tumours of Chapter 1, neurological disorders).

CHAPTER 8: MISCELLANEOUS CONDITIONS

MISCELLANEOUS CONDITIONS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
EXCESSIVE SLEEPINESS - including obstructive sleep apnoea syndrome		
Excessive sleepiness having, or likely to have, an adverse effect on driving includes: • obstructive sleep apnoea syndrome of any severity • any other condition or medication that may cause excessive sleepiness. Legislation states that objective sleep study measurements for driving assessment purposes should use the apnoea-hypopnea index (AHI). Recognising that not all sleep services use AHI, the MEC will accept results of equivalent objective tests.		
Excessive sleepiness including due to mild obstructive sleep apnoea syndrome: • AHI below 15 (mild) on the apnoea-hypopnoea index or equivalent sleep study measure	**Must not drive** but may not need to notify the MEC. Driving may resume only after satisfactory symptom control.	**Must not drive** and must notify the MEC. Driving may be licensed again once control of symptoms is satisfactory. The MEC will require a specialist's confirmation of ongoing adherence to treatment. Licensing is subject to review, usually annually.
Obstructive sleep apnoea syndrome - moderate and severe apnoea syndrome with sleepiness: • AHI 15 to 29 (moderate) • AHI 30 or more (severe) on the apnoea-hypopnoea index or equivalent sleep study measure	**Must not drive** and must notify the MEC. This requirement also applies for a suspected diagnosis yet to be confirmed. Subsequent licensing will require: • control of condition • sleepiness improved • treatment adherence. The MEC will need medical confirmation of the above, and the driver must confirm review to be undertaken every 3 years at the minimum.	**Must not drive** and must notify the MEC. This requirement also applies for a suspected diagnosis yet to be confirmed. Subsequent licensing will require: • control of condition • sleepiness improved • treatment adherence. The MEC will need medical confirmation of the above, and the driver must confirm review to be undertaken annually at the minimum.
Obstructive sleep apnoea - moderate and severe apnoea without sleepiness: • AHI 15 to 29 (moderate) • AHI 30 or more (severe) on the apnoea-hypopnoea index or equivalent sleep study measure	**Must not drive** but need not notify the MEC. Driving may resume once associated symptoms such as poor concentration has been brought under control.	**Must not drive** but need not notify the MEC. Driving may resume once associated symptoms such as poor concentration has been brought under control.

MISCELLANEOUS CONDITIONS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
PROFOUND DEAFNESS		
	May drive and need not notify the MEC. Ordinary eligibility for a normal licence.	Must be assessed and must notify the adjudicating practitioner. For licensing, the paramount importance is placed on a proven ability to communicate in an emergency by: • speech or • suitable alternative, for example SMS text. Inability is likely to result in a licence being refused or revoked.
CANCERS - not covered in other chapters		
In both driving groups, fitness to drive is affected by the risk of seizure (Chapter 1, neurological disorders, non-epileptic seizures) All cases of eye cancer must meet the minimum requirements for vision (Chapter 6).	Must be assessed but may not need to notify the MEC. If there is a likelihood of cerebral metastasis and seizure, the MEC must be notified. There must be no significant complication relevant to driving, such as: • specific limb impairment, for example due to bone tumour, primary or secondary • general impairment, for example due to advanced malignancy producing symptoms such as general weakness or cachexia that affects driving. The effects of any cancer treatment must also be considered - the generally debilitating effects of chemotherapy and radiotherapy in particular.	Must be assessed and must notify the MEC. Licensing requires specific consideration of the likelihood of cerebral metastasis and seizure, and there must be no complications, such as: • specific limb impairment, for example due to bone tumour, primary or secondary • general impairment, for example due to advanced malignancy producing symptoms such as general weakness or cachexia that affects driving. The effects of any cancer treatment must also be considered - the generally debilitating effects of chemotherapy and radiotherapy in particular.
ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS) AND HIV INFECTION		
HIV infection without AIDS If there is no AIDS-defining illness, individuals with HIV may drive and do not need to inform the MEC of their status. NB: the adjudicating professional should exclude cognitive impairment related to HIV Associated Neurological Deficit (see section on cognitive impairment below and see section on dementia in psychiatric disorders.		

MISCELLANEOUS CONDITIONS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
AIDS diagnosed	May drive but must notify the MEC. Licensing may be granted for medical review after 1, 2 or 3 years if enquiries from the adjudicating practitioner find no disability likely to affect driving.	May drive but must notify the MEC. Licensing will be considered individually. Eligibility will require no symptoms likely to affect driving and the maintenance of a CD4 count of 200 cells/microlitre for at least 6 months.
AGE-RELATED FITNESS TO DRIVE		
Older age is not necessarily a barrier to driving. • Functional ability, not chronological age is important in assessments. • Multiple comorbidities should be recognised as becoming more likely with advancing age and considered when advising older drivers. • Discontinuation of driving should be given consideration when an older person -or people around them - become aware of any combination of these potential age-related examples: ○ progressive loss of memory, impaired concentration and reaction time, or loss of confidence that may not be possible to regain. • Physical frailty in itself would not necessarily restrict licensing, but assessment needs careful consideration of any potential impact on road safety. • Age-related physical and mental changes vary greatly between individuals, though most will eventually affect driving. • Professional judgement must determine what is acceptable decline and what is irreversible and/or a hazardous deterioration in health that may affect driving. Such decisions may require specialist opinion.		
Older age	Driver licences in South Africa are not affected by the driver's age	Bus and lorry drivers must submit re-licence applications every 2 years regardless of age. Each application must be accompanied by medical confirmation of satisfactory fitness to drive.
TRANSPLANT - not covered in other chapters		
	A May drive and need not notify the MEC. Except: there must be no other, or underlying condition that requires any restriction or notification to the MEC.	A May drive and need not notify the MEC. Except: there must be no other, or underlying condition that requires any restriction. Failing this, the MEC must be notified and may require individual assessment.

MISCELLANEOUS CONDITIONS		
	GROUP 1: Cars, LMV's Motorcycles	**GROUP 2(3): Trucks, Passenger, Special.**
DEVICES OR IMPLANTS - not covered in other chapters		
	A May drive and need not notify the MEC. Except: there must be no other, or underlying condition that requires any restriction or notification to the MEC.	A May drive and need not notify the MEC. Except: there must be no other, or underlying condition that requires any restriction. Failing this, the MEC must be notified and may require individual assessment.
COGNITIVE DECLINE OR IMPAIRMENT - including early dementia and after stroke or head injury, or HIV associated Neurological Deficit ("HAND")		
There is no single simple marker for the assessment of impaired cognitive function relevant to driving. Whilst the satisfactory ability to manage day-to-day living could provide a yardstick of cognitive competence, screening for impaired function is recommended. There are few validated screening tools available; currently the International HIV Dementia Scale (IHDS) is used. Where the adjudicating professional is unsure, or the screen identifies a significant impairment, formal cognitive function testing by an experienced Occupational Therapist or Neuropsychologist is recommended, including adequate performance in executive functions, reaction times, memory, and concentration. In-car, on-the-road assessments are an invaluable way of ensuring that there are no features liable to present a high risk to road safety, including visual inattention, notable distractibility, impaired multi-task performance.		
COGNITIVE IMPAIRMENT		
	Must not drive and must notify the MEC. Impairment of cognitive functioning is not usually compatible with the driving of these vehicles. Mild cognitive disability may be compatible with safe driving - individual assessment by an OT or neuropsychologist is required.	**Must not drive** and must notify the MEC. Impairment of cognitive functioning is not compatible with the driving of these vehicles. Individual assessment by an OT or neuropsychologist is required.

DRIVING AFTER SURGERY

Evaluating the likely effects of postoperative recovery

Notwithstanding any restrictions or requirements outlined in other chapters of this document, drivers do not need to notify the MEC of surgical recovery unless it is likely to affect driving and persist for more than 3 months.

Licence holders wishing to drive after surgery should establish with their own doctors when it would be safe to do so.

Any decision regarding returning to driving must take into account several issues, including:

- recovery from the effects of the procedure
- anaesthetic recovery from the effects of the procedure
- any distracting effect of pain
- analgesia-related impairments (sedation or cognitive impairment)
- other restrictions caused by the surgery, the underlying condition or any comorbidities.

Drivers have the legal responsibility to remain in control of a vehicle at all times. Drivers must ensure they remain covered by insurance to drive after surgery.

TEMPORARY MEDICAL CONDITIONS

Drivers generally do not need to notify the MEC of conditions for which clinical advice has indicated less than 3 months of no driving.

If the judgement of the treating clinician is that the MEC needs to be notified, the healthcare professional should advise the patient to contact the MEC.

Such a judgement may be necessary for any of a range of conditions that may temporarily affect driving, including, but not limited to:

- postoperative recovery (see ‘Driving after surgery’)
- severe migraine
- limb injuries expected to show normal recovery
- pregnancy associated with fainting or light-headedness
- hyperemesis gravidarum
- hypertension of pregnancy
- recovery following Caesarean section
- deep vein thrombosis or pulmonary embolism.

FRACTURES

A driver does not need to notify the MEC of a fracture, but if recovery post-fracture is prolonged for more than 3 months, the treating clinician should offer advice on a safe time to resume driving.

MEDICATION EFFECTS

It is an offence to drive or attempt to drive while unfit because of alcohol and/or drug use - and driving laws do not distinguish between illegal and prescribed drugs.

Drivers taking prescribed drugs subject to the drug-driving legislation will need to be advised to carry confirmation that these were prescribed by a registered medical practitioner.

Some prescription and over-the-counter medicines can affect driving skills through drowsiness, impaired judgement and other effects.

Prescribers and dispensers should consider any risk of medications, single or combined, in terms of driving - and advise patients accordingly.

Without providing an exhaustive list, the following drug groups require consideration:

- benzodiazepines - these may cause sufficient sedation to make driving unsafe
- antidepressants - sedating tricyclics have a greater propensity to impair driving than SSRIs, which are less sedating. Advice for individual driving safety should be considered carefully for all antidepressants
- antipsychotics - many of these drugs will have some degree of sedating side effect via action on central dopaminergic receptors. Older drugs (chlorpromazine, for example) are highly sedating due to effects on cholinergic and histamine receptors. Newer drugs (olanzapine or quetiapine, for example) may also be sedating; others less so (risperidone, ziprasidone or aripiprazole, for example)
- opioids - cognitive performance may be reduced with these, especially at the start of use, but neuroadaptation is established in most cases. Driving impairment is possible because of the persistent miotic effects of these drugs on vision.

Also refer to Chapter 4, psychiatric disorders, and Chapter 5, drug or alcohol misuse and dependence.

ANNEXURES

Annexure 1: Suggested “routine” minimum medical standards
Annexure 2: Capability requirements for drivers of hazardous mobile equipment
Annexure 3: Hazards to which drivers may commonly be exposed
Annexure 4: Extracts from South African traffic legislation.
Annexure 5: Health evaluation form
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Annexure 7: Disabilities and vehicle adaptations

ANNEXURE 1: SUGGESTED "ROUTINE" MINIMUM MEDICAL STANDARDS

Note:

- These are suggested guidelines. In all cases, the adjudicating professional should consider the facts of the case and the circumstances applicable to the case.
- Decisions will be influenced by the presence of problems that significantly impair an individual's ability to fully control the vehicle or that significantly increase crash risk.

MINIMUM STANDARDS: SPECIFIED CONDITIONS					
	Group 1 **Code 8 (EB/ EC)**	**Group 2** **Code 10 (C1)+**	**Loco**	**Crane**	**Group 3** **Forklifts, Mobile Plant Equipment**
A: Specifications taken from the OREP					
Hearing	N/A	Hear commands.	Hear commands.	Hear commands.	Hear commands.
Balance	Intact	Intact	Intact	Intact, but extra care to be taken because of climbing (tower cranes)	Intact
Acuity – far	6/12 each eye. 6/9 better if one <6/12. Monocular acceptable	6/9 each eye. Monocular NOT acceptable	6/12 each eye. 6/9 better if one <6/12. Monocular acceptable	6/12 each eye. 6/9 better if one <6/12. Monocular acceptable	6/9 each eye. Monocular may be acceptable
Acuity – near (for all occupations listed, corrected vision is acceptable)	6/12 each eye. 6/9 better if one <6/12. Monocular acceptable	6/9 each eye. Monocular not usually acceptable.	6/12 each eye. 6/9 better if one <6/12. Monocular acceptable	6/12 each eye. 6/9 better if one <6/12. Monocular acceptable	6/9 each eye. Monocular may be acceptable (with adaptation).
Visual Fields	70 degrees temporal, or where one eye is blind, a minimum total horizontal visual field of at least 115 degrees	70 degrees temporal	Not required	70 degrees temporal, or where one eye is blind, a minimum total horizontal visual field of at least 115 degrees	70 degrees temporal, or where one eye is blind, a minimum total horizontal visual field of at least 115 degrees
Depth Of Field	Required	Required	Required	Required	Required
Colour	Primary & secondary colours only.	Primary & secondary colours only.	Primary & secondary colours only.	Primary & secondary colours only.	Primary & secondary colours only.
"Night" Vision	N/A	Required	Required	N/A	Required
Hand Coordination*	Required	Required	Required	Required	Required
Foot Coordination*	Required	Required	Required	Required	Required

MINIMUM STANDARDS: SPECIFIED CONDITIONS					
Both Hands Req'd*	Required	Required	To be investigated	Required	Required
Both Feet Req'd*			Below knee amputation prosthesis probably acceptable, but OT assessment recommended		
Strength (Power)*			Strength not specifically a requirement, but significant weakness may require an OT assessment		
Endurance (Fitness)*	Strength not specifically a requirement, but significant weakness may require an OT assessment		Must be able to climb up to the operator cabin. Significant weakness may require an OT assessment	Strength not specifically a requirement, but significant weakness may require an OT assessment	
* Note regarding physical impairments – an Occupational Therapy assessment may be required to determine fitness to drive with the given impairment, OR to seek suitable adaptations to enable driving.					

B: Specifications in the General Medical Assessment	
Weight / BMI	There are no specific height/weight cut-offs, but excessive weight may pose a problem with vehicles with small cabs (cranes, forklifts). BMI>35 warrants intervention & counselling. (note – risk of sleep apnoea !)
Pallor	Consider anaemia. Confirm with blood Hb. (Haemoglobin should be >11g/dl for men &>10mg/dl for women).
Oedema	Identify cardiac failure and renal failure - refer to (or discuss with) company OMP for opinion. Cases of DVT are excluded from driving.
Lymphadenopathy	If AIDS a possibility, conduct an IHDS assessment to exclude AIDS dementia. See IHDS protocol.
Glycosuria	Identify diabetes mellitus. Ensure those with diabetes are under control. See section under "Diabetes" below.

MINIMUM STANDARDS: SPECIFIED CONDITIONS	
Blood pressure	**Raised blood pressure guideline** • Low risk*: systolic <160 diastolic <100, and no risk factors; no diabetes, no target organ damage. • Moderate risk: systolic <180 diastolic <110, or lower BP plus >2 cardiac risk factors; no uncontrolled diabetes, no target organ damage. • High risk: systolic ≥180 diastolic ≥110; or BP >140 /90 and/or uncontrolled diabetes, and/or target organ damage. **Low blood pressure guideline** • Low risk*: systolic <100, no symptoms. "Functional" / physiological – no underlying pathology causing the hypotension. • Moderate risk: systolic <90, symptoms under adverse circumstances only (e.g. when very hot) • High risk: systolic <90; symptoms are experienced during everyday tasks (e.g. when getting up from a seated position, standing for long periods, etc.) Certification: Low risk: Fitness with CONDITION that BP is monitored by healthcare professional and is brought under control within a period of 3-6 months. Moderate Risk: Fitness with CONDITION that BP is put on treatment immediately, and is brought under control within a month, failing which employee is temporarily unfit. High Risk: Temporarily unfit. BP should be controlled for at least 3 weeks before a CONDITIONAL certificate of fitness is issued. *"Low Risk". This is a relative term – it does not mean "no risk", but rather that the risk is present, albeit in the lowest of the categories of "at risk".
Mechanical mobility	Limb ROM sufficient to control steering, operate gears, and foot pedals. Mechanical function that enables the handling of the heavy coupling pipes.
Vision	See above *Long-standing monocular vision is acceptable for code 8 drivers. However, for employees with recent loss of vision in one eye, they should be temporarily reassigned until they have successfully adapted to monocular vision (usually 3-6months).

MINIMUM STANDARDS: SPECIFIED CONDITIONS	
C: Specifications in the Special Investigations	
Diabetes (Blood glucose / HBA_1c)	**Qualifying conditions that should be met for a diabetic to be declared fit to drive:** Note: The WHO diagnostic criteria for diabetes* are a fasting plasma glucose ≥ 7.0mmol/L or a 2hr post prandial plasma glucose ≥ 11.1mmol/L. • **No hypoglycaemic attacks requiring assistance** whilst driving within the previous 12 months. • **HBA1c should aim to be below 9%,** (represents an average glucose level of 12mmol/L, which is just above the WHO value of 11.1 mmol/L as a diagnostic criterion for diabetes). Should the HBA1c exceed 11%, driving should stop. Return to driving should only be allowed when the HBA1c is below this level (proof of consistent control), and on demonstration of insight as to importance of glucose control. • **Random glucose measurement is not an adequate marker of long-term control, but driving should be temporarily stopped should it exceed 15mm/l.** Return to driving should only be allowed when the random blood glucose is below 10mmol/L and the HBA1c level is acceptable (see above).An elevated blood glucose should always be assessed in conjunction with the HBA1c. • The affected driver is required to report immediately to the doctor should there be any significant change in the condition. • The affected driver should only be allowed to drive for long distances or to work shifts by exception (excellent insight & control). * Definition and diagnosis of diabetes mellitus and intermediate hyperglycaemia. World Health Organization 2006. **Non-insulin dependent diabetics** should: • Be in possession of a working glucometer, and • Provide evidence of regular testing, at least **twice a week**. **Insulin dependent diabetics should:** • Be in possession of a working glucometer and provide evidence of regular testing at least **twice daily** during times relevant to driving. The use of a memory chip meters for such monitoring is advised. • Be examined every 12 months preferably by a medical specialist in the management of diabetes, or at least a GP with additional training in diabetes management (e.g. Certified Diabetic Educator*). At the examination, the doctor will require sight of the blood glucose records for the last 3 months. • Have no other condition, which would render them a danger when driving large vehicles. **It is only under exceptional circumstances that insulin dependent diabetics should be considered fit to drive bulk vehicles.**

MINIMUM STANDARDS: SPECIFIED CONDITIONS	
	A Certified Diabetes Educator® (CDE®) is a health professional who possesses comprehensive knowledge of and experience in prediabetes, diabetes prevention, and management. The CDE® educates and supports people affected by diabetes to understand and manage the condition. See http://www.ncbde.org/
Audiometry	N/A
Lung Function	Spirometry only if clinically indicated. Identify those with severe impairment (FVC<50% and FEV1<50%). Refer to (or discuss with) company OMP for opinion.
Urine cannabis & other recreational drugs	**Only performed where there is a substance abuse policy in place, or if clinically indicated (outcome to be managed in collaboration with the OMP, who should be experienced in issues relating to substances of abuse).** Must be negative. If confirmed positive at pre-employment, exclude. If confirmed positive at periodical, manage according to the substance abuse policy and procedure (may invoke disciplinary action). In the absence of a formal policy, exclude until negative for at least 3 months. If confirmed positive a second time at periodical, exclude permanently (based on the risk of an adverse event, as opposed to a policy requirement). A positive urine screening test for recreational drugs should be confirmed using diagnostic GC-MS (Gas Chromatography, Mass Spectrometry). If this is not practical (rapid staff deployment in special circumstances such as contractor adjudication), declare unfit or refer to company OMP (weigh up risks of the job, possibility of cross-reactions, and clinical state of applicant).
Blood GGT (&CDT)	GGT must be < 2x upper reference limit. If elevated, confirm with CDT, which should be <2. If GGT/CDT elevated at pre-employment, exclude. If elevated at periodical, exclude until CDT normal for at least 1 month.
HIV Status	HIV disease (AIDS) is a particular concern, for safety-sensitive work (requiring intact cognitive function), such as driving. Medical evidence indicates that HIV can cause a dementia-like illness, even at relatively mildly reduced CD4 counts. Furthermore, the return to normal cognitive function following ARV treatment is not predictable, even if the CD4 counts are restored. For this reason, should the examiner be aware of the presence of HIV disease or AIDS, he/she should be alert for signs of neurocognitive impairment. A fitness to drive decision should NOT be based on the CD4 count alone, but by the performance in neurocognitive function. However, the CD4 count can be used as a marker of concern, triggering investigative action. At this time, mechanisms by which to identify those at risk are imperfect, and screening tools are being developed. The IHDS* is one such test. The following guideline is aimed at trying to minimise the likelihood of missing employees with cognitive impairment related to HIV illness. CD4 count — IHDS Test* — Refer for professional neurocognitive assessment — Review interval <150 — Yes — Yes — 3 months 150-500 — Yes — If impairment identified on IHDS test* — 3 months 500-1000 — If indicated — If impairment identified on IHDS test* — 6 months >1000 — No — No — 12 months * International HIV Dementia Scale (“IHDS”) test.

ANNEXURE 2: HAZARDS TO WHICH DRIVERS MAY COMMONLY BE EXPOSED

It is very important to understand the hazards to which drivers may be exposed when adjudicating fitness to drive. Note that one of the criteria for determining fitness to work is "*the ability to function in the working conditions associated with the job (i.e. potential to be exposed to certain hazards), without undue risk to health*".

The following is not an exhaustive list of hazards; however it comprises a list of common hazards to consider and is a prompt for the adjudicating professional. It is strongly advised that a full health assessment is conducted, to determine all the relevant risks.

Hazard	Comments
Chemicals	Drivers delivering chemical products may be exposed during coupling/ uncoupling of pipes, or in the event of spills (especially if the driver is involved in an accident).
Biological Agents	Drivers could be the first rescuers at the scene of an accident and could be exposed to blood-borne pathogens.
Noise	From noisy vehicles.
Heat	Usually only a significant problem if the driver has to perform physically demanding tasks and if there is little access to fluids. This may happen if the driver is involved with physically handling the cargo.
Cold	Vehicles that do not have enclosed cabs (fork-lift machines, cranes, tractors, etc.).
Vibration	Vehicles with inadequate suspension, and with solid wheels, especially if driven over uneven surfaces.
Radiation (non-ionising)	UV light exposure, especially in vehicles operating in very sunny conditions that do not have enclosed cabs.
Ergonomic	Poorly designed seats. Often forklift operators have to adopt awkward postures for prolonged periods. Ergonomically risky tasks include: • Coupling/uncoupling hoses • Handling awkward cargo • Climbing onto the top of tankers or other high vehicles
Stress	The demands of tough time-schedules in difficult traffic, with difficult customers and supervisors can lead to severe stress. Aggravated by poor lifestyles and possible adverse impacts on home life (long shifts).
Hours of Work	Shift work, frequent overtime and long journeys are common aspects of drivers' work lives. This causes fatigue, with the risk of driver error and MVA. Also impacts on lifestyle and conditions at home.
Glare	Driving in bright sunlight, especially on surfaces with a high reflection index (cement, tar, sand, snow).

Exposure prevention is the key to preventing adverse health effects, through applying the hierarchy of controls.

ANNEXURE 3: EXTRACTS FROM SOUTH AFRICAN TRAFFIC LEGISLATION

The Minister of Transport has the responsibility of ensuring all licence holders are fit to drive.
The legal basis of fitness to drive in South Africa lies in the National Road Traffic Act (93 of 1996) and the general regulations. The key features of this legislation follow:

The National Road Traffic Act (93 of 1996) Chapter IV Sections 15 and 16;

Section 15

15.(1) A person shall be disqualified from obtaining or holding a learner's or driving licence if he or she:

(f) is suffering from one of the following diseases or disabilities:

(i) uncontrolled epilepsy;
(ii) sudden attacks of disabling giddiness or fainting due to hypertension or any other cause;
(iii) any form of mental illness to such an extent that it is necessary that he or she be detained, supervised, controlled and treated as a patient in terms of the Mental Health Act, 1973 (Act No. 18 of 1973);
(iv) any condition causing muscular incoordination;
(v) uncontrolled *diabetes mellitus*;
(vi) defective vision ascertained in accordance with a prescribed standard;
(vii) any other disease or physical defect which is likely to render him or her incapable or effectively driving and controlling a motor vehicle of the class to which such licence related without endangering the safety of the public: Provided that deafness shall not of itself be deemed to be such a defect.

(g) is addicted to the use of any drug having narcotic effect or the excessive use of intoxicating liquor.

(h) in such other circumstance as may be prescribed, either generally or in respect of a particular class of learner's or driving licence.

Section 16

16.(1) No person shall, when applying for a learner's or driving licence, wilfully fail to disclose any disqualification to which he or she is subject in terms of Section 15.

16.(2) Any person who -

(a) is the holder of a licence authorising the driving of a motor vehicle in terms of this Chapter; and

(b) becomes aware thereof that he or she is disqualified from holding such licence, shall within a period of **21 days** after having so become aware of the disqualification, submit the licence or, in the case where it is contained in an identity document, that document to the MEC of the province concerned.

16.(3) When a licence is submitted in terms of subsection (2) the chief executive officer shall **cancel it** and if the licence was issued in a prescribed territory he or she shall notify the authority which issued it of the cancellation: Provided that if the chief executive officer is satisfied that the holder thereof is competent to drive the class of motor vehicle concerned with the aid of glasses, an artificial limb or any other physical aid, the chief executive officer shall, in the case where the licence -

(a) is contained in an identity document -

(i) not cancel the licence, but endorse the licence accordingly and such endorsement shall be a condition subject to which the licence is held;
(ii) return the identity document to the holder thereof; or

(b) is not contained in an identity document, issue or authorise the issue of a new licence in the prescribed manner reflecting the conditions on which it is issued.

[Subs. (3) amended by s. 11 of Act 21/99]

CHAPTER IV

Fitness of Drivers

Part II

Categories of licences (summary)

(from Government Gazette No. 20963, 17 March 2000).

- A1: Motorcycle <125cc
- A: Motorcycle >125cc
- B: Tractor (old code 05), industrial equipment (Forklift) (old code 07), & especially adapted vehicles for the "physically disabled" (old code 12)
- EB: (Old code 08) Motor vehicle (incl. minibus, bus or goods vehicle) of size <3'500kg.
- EC1: (Old code 10) Motor vehicle (incl. minibus, bus or goods vehicle) of size 3'500 – 16'000kg.
- EC: (Old code 11, 13 & 14) Motor vehicle (incl. minibus, bus or goods vehicle) of size > 16'000kg.

Period of validity of learner's licence and driving licence

101. (1) The period of validity of a **learner's licence** issued or deemed to be issued in terms of section 17 of the Act shall be **18 months** from the date of examination and test referred to in section 17(2) of the Act.

(2) (a) The period of validity of a **driving licence** issued or deemed to be issued in terms of section 18 of the Act shall be **indefinite**, unless such licence has been suspended or cancelled in terms of the Act.

Defective vision disqualifying person from obtaining or holding licence

102. (1) A person shall be disqualified from obtaining or holding a learner's or driving licence unless-

(a) in the case of an application for a learner's or driving licence relating to the code A1, A, B or EB, such person has-

(i) according to the Snellen rating a minimum visual acuity, with or without refractive correction, of 6/12 (20/40) for each eye, or where the visual acuity of one eye is less than 6/12 (20/40) or where one eye of the person concerned is blind, a minimum visual acuity for the other eye of 6/9 (20/30); and

(ii) a minimum visual field of 70 degrees temporal, with or without refractive correction, in respect of each eye, or where the minimum visual field in respect of one eye is less than 70 degrees temporal, or where one eye is blind, a minimum total horizontal visual field of at least 115 degrees with or without refractive correction; or

(b) in the case of an application for a learner's or driving licence relating to the code C1, C, EC1 or EC, such person has-

(i) according to the Snellen rating a minimum visual acuity, with or without refractive correction, of 6/9 (20/30) for each eye; and

(ii) a minimum visual field of 70 degrees temporal in respect of each eye, with or without refractive correction.

(2) (a) A person who is disqualified in terms of sub regulation (1) may at such person's expense approach a registered optometrist or ophthalmologist to test such person's eyes in terms of the standards referred to in sub regulation (1), and the result of such test shall, if it duly reflects the visual acuity of such person according to the Snellen rating, and his or her field of vision expressed in degrees, as contemplated in sub regulation (1), be accepted by the driving licence testing centre.

(b) If the result contemplated in paragraph (a) indicates that the person concerned is disqualified as contemplated in sub regulation (1), the driving licence testing centre shall not issue such person with a learner's or driving licence with a code to which the application of that person relates.

Manner of application for learner's licence

103. (1) An application in terms of section 17(1) or section 24(1) of the Act shall be made by the applicant at a driving licence testing centre on form LL1 as shown in Schedule 2, and shall be accompanied:

(a) …

(b) …

(c) in the case of an applicant who is **65 years of age or older**, by the medical certificate on form MC as shown in **Schedule 2**, signed by a **medical practitioner or occupational health practitioner**, certifying that the applicant is not disqualified in terms of section 15(1)(f) or (g) of the Act from obtaining a learner's or driving licence; and (d) by the appropriate fee as determined by the MEC of the province concerned.

Application for registration as instructor

114A. (1) Any person desiring to be registered as an instructor shall apply at a driving licence testing centre to the chief executive officer on form RI as shown in Schedule 2, in respect of one or more of the classes of motor vehicles for which a learner's or driving licence can be obtained as contemplated in regulation 99(1), and such application shall be accompanied by the appropriate fee as determined by the MEC of the province concerned.

(2) Upon receipt of an application in terms of sub regulation (1)-
(a) …
(b) the driving licence testing centre shall require the applicant to be medically examined at the applicant's cost by a **medical practitioner or occupational health practitioner** in order to obtain a report on form MC as shown in **Schedule 2** on the physical and mental fitness of such applicant to act as an instructor.

Part IV

Professional Driving Permit

Certain drivers of certain vehicles to hold professional driving permit

115. (1) Subject to the provisions of sub regulation (2), a professional driving permit shall be held by the driver of-
(a) a **goods vehicle**, the gross vehicle mass of which **exceeds 3 500 kilograms**;
(b) a **breakdown vehicle**;
(c) a **bus**;
(d) a **minibus**-
(i) the gross vehicle mass of which **exceeds 3 500 kilograms**; or
(ii) which is designed or adapted for the **conveyance of 12 or more persons**, including the driver;
(e) a motor vehicle used for the **conveyance of persons for reward**;
(f) a goods vehicle carrying **dangerous goods** the gross vehicle mass of which **exceeds 3 500 kilograms** or a vehicle to which standard specification SABS 1398 "Road tank vehicles for petroleum-based flammable liquids" or standard specification SABS 1518: "Transportation of dangerous goods - design requirements for road tankers" apply; and
(g) a motor vehicle conveying **12 or more persons including the driver**.

(2) The provisions of sub regulation (1) does not apply-
(a) to a traffic officer or examiner of vehicles in the performance of his or her duties as contemplated in sections 31 and 3G of the Act, respectively;
(b) to a person driving a hearse;
(c) to a person driving a motor vehicle referred to in regulation 21(1)(a)(ii) or 21(1)(b) to (9);
(d) subject to regulation 99(2), to a person driving a motor vehicle for which he or she holds a valid learner's licence with the code prescribed for that vehicle in terms of regulation 99(1), while being accompanied by a person holding a valid professional driving permit which authorises him or her to drive that vehicle;
(e) to a person driving a tractor.

Categories of, and authority conveyed by, professional driving permit

116. (1) Professional driving permits are divided in the following categories:
(a) **Category "G",** which authorises the driving of a motor vehicle as referred to in regulation 115(1)(a) and (b);
(b) **category "P",** which authorises the driving of a motor vehicle referred to in regulation 115(1)(a), (b), (c), (d), (e) and (g); and
(c) **category "D"**, which authorises the driving of a motor vehicle referred to in regulation 115(1).

(2) For the purpose of sub regulation (1), the term "driving" shall include the driving of a motor vehicle drawing another motor vehicle the last named of which is a motor vehicle as contemplated in regulation 115(1).

(3) The authority provided by a professional driving permit only applies in respect of a vehicle for which the holder holds a valid driving licence.

Disqualification from obtaining professional driving permit

117. A professional driving permit shall not be issued by a driving licence testing centre-

(a) unless the applicant is in possession of a valid driving licence for a motor vehicle in respect of which the permit is applied for;

(a A) unless, in the case of an application for a category "P" and "D" professional driving permit, the applicant is of the age of 21 years and 25 years, respectively, or over;

(b) unless a **registered medical practitioner or occupational health practitioner** has **examined the applicant** to determine whether or not he or she is disqualified from driving a motor vehicle as contemplated in section 15(1) (f) of the Act, and has certified the applicant to be **medically fit** on form MC as shown in **Schedule 2 not more than 2 months** prior to the date of the application;

(c) if the applicant has, within a period of five years prior to the date of the application, been convicted of-

(i) driving a motor vehicle while under the influence of intoxicating liquor or a drug having a narcotic effect;

(ii) driving a motor vehicle while the concentration of alcohol in his or her blood or breath exceeded a statutory limitation;

(iii) reckless or negligent driving; or

(iv) in the case of an application for a category "P" and "D" permit, an offence of which violence was an element;

(d) during any period for which a professional driving permit or driving licence held by the applicant has been suspended or if such permit or licence has been cancelled; or

(e) unless, from a date to be determined by the Minister by notice in the Gazette, the applicant for a category "D" permit holds a certificate obtained from an approved training body as contemplated in regulation 280, not more than 2 months prior to the date of application.

Application for professional driving permit

118. (1) The driver of a vehicle contemplated in regulation 115(1) shall apply at a driving licence testing centre for a professional driving permit on form PD1 as shown in **Schedule 2**.

(2) An application referred to in sub regulation (1) shall be accompanied by-

(a) …
(b) …
(c) …
(d) …

(d A) ….

(e) the medical certificate on form MC as shown in **Schedule 2**;

Period of validity of professional driving permit, re-application and re-issuing

122. (1) A professional driving permit shall be valid for a period of 24 months from the date of authorisation thereof as referred to in regulation 119(1)(e) but shall be deemed to be valid for a further period of 21 days calculated from the date of expiry unless the permit or a driving licence of the person concerned has been suspended or cancelled.

(2) Regulations 117, 118 and 119 apply to the re-application and re-issuing of a professional driving permit.

Suspension or cancellation of professional driving permit

123. (1) If any circumstance arises which would have caused the holder of a professional driving permit to be disqualified from obtaining that permit, the chief executive officer may suspend or cancel the permit held by such person and the holder shall submit the driving licence card on which the permit appears to the chief executive officer, upon which the chief executive officer shall-

(a) remove the professional driving permit from the driving licence card; and

(b) record the suspension or cancellation of the permit on the register of professional driving permits.

(2) The holder of a professional driving permit whose permit has been suspended or cancelled by a court under section 34 of the Act, shall submit the card on which the permit appears to the registrar or clerk of the court who shall ensure that the professional driving permit is removed from the driving licence card by the chief executive officer and that the suspension or cancellation of the permit is recorded on the register of professional driving permits.

Prohibition of permitting or assisting person not being holder of professional driving permit to drive vehicle

124. No person who-

(a) is the operator, owner or is in charge or control of a motor vehicle referred to in regulation 115(1) may employ or permit any other person to drive that motor vehicle on a public road, unless that other person is the holder of a professional driving permit of the appropriate category contemplated in regulation 116(1); or

(b) is the holder of a professional driving permit under this Part, may allow such permit to be used by any other person.

Referral of application to MEC

125. (1) If an applicant for a professional driving permit complies with all the requirements and conditions specified in the regulations but has-

(a) not been certified to be medically fit as referred to in regulation 117(b); or

(b) within a period of five years prior to the date of the application, been convicted of an offence referred to in regulation 117(c),

he or she may request the driving licence testing centre concerned to refer his or her application to the MEC for a decision whether or not a professional driving permit may be issued.

(2) An application referred to the MEC for a decision shall be accompanied by the applicant's reasons why the application should be re-considered as well as a **recommendation from the testing centre** whether the application should be re-considered.

(3) If the MEC approves that a professional driving permit may be issued, he or she shall-

(a) ensure that such approval is recorded on the register of professional driving permits; and

(b) inform the driving licence testing centre concerned accordingly, and the testing centre shall deal with the application in accordance with regulation 119.

(4) If the MEC refuses the application, the testing centre concerned and the applicant shall be informed accordingly.

ANNEXURE 4: HEALTH EVALUATION FORM

MEDICAL EXAMINATION FORM AND CERTIFICATE

FINDINGS OF PRDP MEDICAL EXAMINATION EXAMINER'S NAME AND ADDRESS (Please print)		1. Application for (specify type of licence	Initial	
			Renewal	
		2. Full names, including surname		
		3. Postal Address	4. Telephone Numbers	
Date of birth	Sex		( ) (Home) ( ) (Work)	
ID/Passport Number	PR No.	5. Date of Birth	6. Age	7. Sex / 8. Occupation
This certificate is issued in accordance with the Road Traffic Act (No. 93 of 1996)		9. ID/Passport Number	10. Licence No.	
Date of Examination		11. Have you used any medicines (Prescription/Non Prescription) In the last three (3) months ?		
Examiner's signature	Applicant's signature	YES / NO		If Yes, please give details

12. Medical History if Yes, please provide complete details below (if the space is insufficient, add supplementary notes on separate sheets)
N= No, Y = Yes

Family history of:	N	Y	Have you ever had, or do you now have:	N	Y	Have you had, or do you now have:	N	Y
(12.1) Heart disease or high blood pressure			(12.13) Any other neurological disorder			(12.27) Heartburn, frequent indigestion		
(12.2) Epilepsy or convulsions			(12.14) Any mental/psychological disorder			(12.28) Stomach, liver or intestinal trouble		
(12.3) Glaucoma or blindness			(12.15) Misuse of drugs or other substances			(12.29) Bleeding from the rectum		
(12.4) Diabetes Mellitus (sugar sickness)			(12.16) Alcohol abuse			(12.30) Kidney stone or blood in the urine		
Have you ever been			(12.17) Suicide attempt			(12.31) Sugar or protein in the urine		
(12.5) Refused Life Assurance			(12.18) Motion sickness (requiring treatment)			(12.32) Diabetes Mellitus (sugar sickness)		
(12.6) Convicted of a civil or criminal offence			(12.19) Eye or vision trouble (except glasses)			(12.33) Prostate/Gynaecological problems		
(12.7) A smoker			(12.20) Hearing or speech disorders			(12.34) Any blood or thyroid disorder		
Have you ever had or do you have			(12.21) Asthma or lung disease			(12.35) Malignant tumours or cancer		
(12.8) Frequent or severe headaches			(12.22) Collapsed lung (pneumo/haemothorax)			(12.36) Weight loss (without dieting)		
(12.9) Dizziness or unsteadiness			(12.23) Tuberculosis or pneumonia			(12.37) A positive HIV test		
(12.10) Unconsciousness (for any reason)			(12.24) Heart disease or high blood pressure			(12.38) Sexually transmitted disease		
(12.11) Head injury or concussion			(12.25) Chest discomfort, pain or palpitations			(12.39) Any other illness or injury		
(12.12) Epilepsy or fits of any kind			(12.26) Heart murmur, or valve problem			(12.40) Admission to hospital (for any reason)		

REMARKS (to be completed by PRDP Medical Examiner (Comment in full on all items marked Yes)

13. MEDICAL TREATMENT WITHIN THE LAST TWO (2) YEARS

Date	Name and medical practitioner, and medical speciality	Diagnosis/reason for treatment

14. NOTICE: Any person who makes, either orally or in writing, or misleading statement in or in connection with any application for a licence, certificate or rating, issue under these regulations, shall be guilty of an offence.	15. DECLARATION BY APPLICANT: I hereby certify that all statements made by me in this examination form are complete and true, to the best of my knowledge, and I hereby agree – that they are to be considered part of the basis for issuance of any medical certificate to me, and that all medical records must be released to DOT if so requested by DOT	
16. Signature of applicant	16. Signature of Medical Examiner (As Witness)	18. Date

PHYSICAL EXAMINATION

19. Mass	20. Height	21. Pulse Rate	22. Blood Pressure	Lying	Sitting	23. URINALYSIS (reading only required if abnormal)					
						NORMAL	Appearance	pH	Protein	Sugar	Blood
						ABNORMAL					
kg	Cm	/min	/		mm Hg						

Mark each item in the appropriate column	NAD	ABN	Mark each item in the appropriate column	NAD	ABN
24. Head, face, scalp and neck			32. Genito-urinary system (males-rectal exam,)		
25. Nose and sinuses			33. Neurological system		
26. Ears and eardrums			34. Upper limbs (strength, range of motion)		
27. Valsalva (patient bilaterally			35. Lower limbs (strength, range of motion)		
28. Cardiovascular			36. Spine and musculoskeletal		
29. Lungs, chest and breast			37. Skin		
30. Peripheral Vascular Lymphatic			38. Identifying body marks, scars, tattoos etc.		
31. Abdomen			39. Psychological evaluation		
			40. Any other problems and general impression		

VISUAL EXAMINATION (If indicated, use separate visual examination form)

	41. VISUAL ACUITY (use Snellen notation)		42. Colour Vision	
EYE	a. DISTANCE VISION (6m)	b. NEAR VISION (30-50cm)	43. Visual Fields	
Right	6/ corrected by 6/	6/ corrected by 6/	L	R
Left	6/ corrected by 6/	6/ corrected by 6/		

44. AUDIOLOGICAL EXAMINATION (dB hearing loss)

45. SPECIAL INVESTIGATIONS:

(1) Are any other test indicated? (e.g. blood/ urine)	YES	NO	If YES, please specify
(2) Substance abuse tests	YES	NO	If YES, please specify

46. SUMMARY OF FINDINGS: Describe every abnormality in detail. Attach additional pages if necessary.

☐ Significant medical history/findings

☐ No abnormal medical findings

47. This is to certify that the applicant identified on this form is

Fit	Unfit	Temporarily unfit	From:	To:

If unfit give reasons for **DECISION/RESTRICTIONS**:

☐ Medical certificate issued

Telephone number

Signature | Name and qualifications of Medical Examiner | Date

ANNEXURE 5: DOT CERTIFICATION FORM FOR PROFESSIONAL DRIVER PERMIT (MS/MC)

MC(7)(2005/11) MC

REPUBLIC OF SOUTH AFRICA — REPUBLIEK VAN SUID AFRIKA

MEDICAL CERTIFICATE
(National Road Traffic Act, 1996)

VALID 4 MONTHS ONLY

MEDIESE SERTIFIKAAT
(Nasionale Padverkeerswet, 1996)

IMPORTANT TO READ

(a) Write one capital letter per block. e.g. M O T O R S bv.

(b) Mark with a cross (X) where applicable e.g. traffic register no. verkeersregisternr. | RSA ID RSA ID | foreign ID buitelandse ID bv.

(c) Dates shall be written in year, month and day order. e.g. year Yaar | month maand | day dag bv.

(d) The eye test is excluded, but will be performed by the driving licence testing centre.

BELANGRIK OM TE LEES

(a) Skryf een hoofletter per blokkie.

(b) Trek 'n kruis (X) in die toepaslike ruimte.

(c) Datums word in jaar, maand en dag volgorde geskryf.

(d) Die oogtoets is uitgesluit, maar sal deur die bestuurslisensie toetssentrum gedoen word.

PARTICULARS OF MEDICAL PRACTITIONER — BESONDERHEDE VAN MEDIESE PRAKSYN

Type of acceptable identification (mark with X): traffic register no. verkeersregisternr. | RSA ID RSA ID | foreign ID buitelandse ID — Soort aanvaarbare identifikasie (merk met X)

Identification number — Identifikasienommer

Country of Issue if foreign ID — Land van uitreiking indien buitelandse ID

Surname — Van

initials and first names (not more than 3): initials voorletters | first names voorname — voorletters en voorname (hoogstens 3)

Health Professions Council of South Africa registration number — Raad vir Gesondheidsberoepe van Suid-Afrika registrasienommer

Address where notices must be served — Adres waar kennisgewings beteken moet word

Suburb — Voorstad

City/Town — postal code/poskode — Stad/Dorp

Telephone number — code/Kode — number/nommer — Telefoonnommer

PARTICULARS OF APPLICANT — BESONDERHEDE VAN AANSOEKER

Type of acceptable identification (mark with X): traffic register no. verkeersregisternr. | RSA ID RSA ID | foreign ID buitelandse ID — Soort aanvaarbare identifikasie (merk met X)

Identification number — Identifikasienommer

Country of Issue if foreign ID — Land van uitreiking indien buitelandse ID

Surname — Van

initials and first names (not more than 3): initials voorletters | first names voorname — voorletters en voorname (hoogstens 3)

Address where notices must be served — Adres waar kennisgewings beteken moet word

Suburb — Voorstad

City/Town — postal code/poskode — Stad/Dorp

TURN OVER — BLAAI OM

MEDICAL CONDITION — MEDIESE TOESTAND

Medical practitioner's judgement on whether the applicant's condition in respect of the following disorders will affect the applicant's ability to drive a motor vehicle without endangering public safety:	yes ja	No Nee	Mediese praktisyn se oordeel of die aansoeker se toestand met betrekking tot die volgende ongesteldhede, die aansoeker se vermoë on 'n motorvoertuig te bestuur sonder om die publiek in gevaar te stel, sal beïnvloed:
a) Diabetes Mellitus (requiring medication)	yes ja	No Nee	a) Diabetes mellitus (benodig medikasie)
b) Thrombosis or any other coronary disease	yes ja	No Nee	b) Trombose of enige ander koronêre siekte
c) Respiratory dysfunction	yes ja	No Nee	c) Asemhalingswanfunksie
d) High blood pressure	yes ja	No Nee	d) Hoë bloeddruk
e) Epilepsy, muscular, vascular or neuro muscular disease	yes ja	No Nee	e) Epilepsie, spier-, vaskulêre of senuwee-aantastende siekte
f) Mental, nervous or functional disease or psychiatric disorder	yes ja	No Nee	f) Brein, senuwee of funksionele siekte of sielkundige afwyking
g) Loss of hearing (need for hearing aid should be recorded)	yes ja	No Nee	g) Verlies van gehoor (behoefte aan gehoortoestel moet aangeteken word)
h) Excessive use of intoxicating liquor, amphetamines, narcotics or any habit forming drug	yes ja	No Nee	h) Oormatige gebruik van sterk drank, amfetamines, dwelms of enige ander gewoonte-vormende middels
i) Alcoholism	yes ja	No Nee	i) Alkoholisme
j) Impairment of the use of an arm, hand or fingers, leg or foot	yes ja	No Nee	j) Aantasting van die gebruik van 'n arm, hand of vingers, been of voet
k) Loss of limbs (leg, foot, arm or hand, need for artificial limbs should be recorded)	yes ja	No Nee	k) Verlies aan ledemate (been, voet, arm of hand, behoefte aan kunsledemate moet aangeteken word)
l) Any other disease or disability	yes ja	No Nee	l) Enige ander siekte of ongeskiktheid

If the answer to any of the above was "yes", give full details:

Indien die antwoord op enige van die bostaande "ja" was, verskaf volledige besonderhede:

DECLARATION — VERKLARING

I, the medical practioner:

Ek, die mediese praktisyn:

	medically fit medies geskik	medically unfit medies ongeskik	
(a) Declare the applicant, excluding the eye test, for purposes of driving a motor vehicle, as			(a) verklaar dat aansoeker, die oogtoets uitgesluit, vir doeleindes van die bestuur van 'n motorvoertuig, as

(b) declare that all the particulars furnished by me in this form are true and correct; and

(b) verklaar dat alle besonderhede wat deur my op hierdie vorm verstrek is, waar en korrek is; en

(c) realise that a false declaration is punishable with a fine or one year imprisonment or both.

(c) besef dat 'n vals verklaring strafbaar is met 'n boete of een jaar gevangenisstraf of beide.

Signature ..... Handtekening

Place ..... Plek

Date 2 : 0 Y : J M : M D : D Datum

Date stamp of office of Doctor

Datumstempel van kantoor van Dokter

ANNEXURE 6: DISABILITIES AND VEHICLE ADAPTATIONS

Group 1 car and motorcycle

Driving often remains possible with certain adjustments for a disability, whether for a static and progressive disorder or a relapsing one. These vehicle modifications may be needed for:

- permanent limb and spinal disabilities - for example, amputation, hemiplegia, cerebral palsy, ankylosing spondylitis, or severe arthritis (especially with pain);
- chronic neurological disorders - for example, multiple sclerosis, Parkinson's disease, motor neurone disease, or peripheral neuropathy.

Vehicle adaptations range from simple automatic transmission for many disorders, to sophisticated modifications such as joysticks and infrared controls for people with severe disabilities.

The adjudicating practitioner will need to know about a disability and whether any controls require modification.

The driving licence is coded to reflect any vehicle modifications.

Assessment centres offer people advice about driving with a disability.

Group 2 bus and lorry

Some disabilities, if mild and non-progressive, may be compatible with driving large vehicles. The MEC needs to be notified and will require an individual assessment.

Mobility scooters and powered wheelchairs

Users of Class 2 or 3 mobility vehicles - which are limited on the road to 4 mph or 8 mph - are not required to hold a driving licence, and they do not need to meet the medical standards for driving motor vehicles. The following is recommended, however:

- individuals with a medical condition that may affect their ability to drive these mobility vehicles should consult their GP first;
- users should be able to read a car number plate from a distance of 12.3 meters.