Assessing fitness to drive

for commercial and private vehicle drivers

2022 EDITION

Medical standards for licensing and clinical management guidelines

Austroads

National Transport Commission

A web version of the medical standards is available from the Austroads website: www.austroads.com.au

Help for professionals

For guidance in assessing a patient's fitness to drive contact your State or Territory driver licensing authority (see Appendix 9 for details). Information is also available from the Austroads website: www.austroads.com.au

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About Austroads and the NTC

Austroads

Austroads is the collective of the Australian and New Zealand transport agencies, representing all levels of government. Austroads' purpose is to support its member organisations to deliver an improved Australasian road transport network. To succeed in this task, Austroads undertakes leading-edge road and transport research which underpins its input to policy development and published guidance on the design, construction and management of the road network and its associated infrastructure. Austroads also supports its members to achieve consistency and improvements in the application of registration and licensing practices, processes and systems.

National Transport Commission

The NTC is a national land transport reform agency that supports Australian governments to improve safety, productivity and environmental outcomes, provide for future technologies and improve regulatory efficiency.

The NTC has a legislative requirement to develop, monitor and maintain uniform or nationally consistent regulatory and operational arrangements for road, rail and intermodal transport.

As a key contributor to the national reform agenda, the NTC is accountable to Commonwealth, state and territory ministers who are responsible for transport and infrastructure and make up membership of the Infrastructure and Transport Ministers' Meeting (ITMM). The NTC works closely with ITMM's advisory body, the Infrastructure and Transport Senior Officials' Committee, which includes the heads of Commonwealth, state and territory agencies.

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Setting these standards involved extensive consultation across a wide range of stakeholders including regulators, employers and health professionals. The NTC and Austroads gratefully acknowledge all contributors including the members of the Advisory Group, the Medicinal Cannabis Working Group, the project team and consultants. In particular, the contributions of various health professional organisations and individual health professionals are invaluable to the review process.

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Contributing health professional organisations

The following organisations contributed substantially to the review process:

- Australian and New Zealand Association of Neurologists
- Australian Diabetes Society
- Australasian Sleep Association
- Cardiac Society of Australia and New Zealand
- Cognitive Dementia and Memory Service
- Epilepsy Society of Australia
- Occupational Therapy Australia
- Optometry Australia
- Orthoptics Australia
- Stroke Society of Australasia
- The Royal Australian and New Zealand College of Ophthalmologists
- The Royal Australian and New Zealand College of Psychiatrists.

Endorsements

These standards are endorsed by:

- Australasian Faculty of Occupational and Environmental Medicine
- Australasian Faculty of Rehabilitation Medicine
- Australasian Sleep Association
- Australian and New Zealand Association of Neurologists
- Australian College of Rural and Remote Medicine
- Australian Diabetes Society
- Cardiac Society of Australia and New Zealand
- Occupational Therapy Australia
- Royal Australian College of Physicians

Accepted Clinical Resource

Royal Australian College of General Practitioners

Legal disclaimer

These licensing standards and management guidelines have been compiled using all reasonable care, based on expert medical opinion and relevant literature, and Austroads believes them to be correct at the time of publishing. However, neither Austroads nor the authors accept responsibility for any consequences arising from their application.

Health professionals should maintain an awareness of any changes in healthcare and health technology that may affect their assessment of drivers. Health professionals should also maintain an awareness of changes in the law that may affect their legal responsibilities.

Where there are concerns about a particular set of circumstances relating to ethical or legal issues, advice may be sought from the health professional's medical defence organisation or legal advisor.

Other queries about the standards should be directed to the relevant driver licensing authority.

Foreword

In 2020, 1,106 people were killed on Australian roads, and many tens of thousands were hospitalised with serious injuries. The annual economic cost of road crashes in Australia is estimated to be $30 billion, which is accompanied by devastating social impacts.

While many factors contribute to safety on the road, driver health and fitness to drive is an important consideration. Drivers must meet certain medical standards to ensure their health status does not unduly increase their crash risk.

Assessing fitness to drive is a joint publication of Austroads and the National Transport Commission (NTC) and details medical standards for driver licensing purposes for use by health professionals and driver licensing authorities. The standards are approved by Commonwealth, state and territory transport ministers and were first published in their current form in 2003. The previous edition was published in 2016.

Since its last publication, medical, legal and social developments have required that the medical criteria within the guidelines are updated to ensure they are accurate and reflect current practices. To this end, the NTC reviewed the guidelines, taking into account feedback from stakeholders, including medical professionals and expert consultants.

This review produced revised guidelines in draft form, for public consultation in May 2021. Doctors, other health professionals, members of the public, consumer groups, commercial operators and drivers, transport peak bodies and governments submitted comments to the draft guidelines.

Austroads and the NTC acknowledge the significant contribution of health professionals to road safety. Health professionals, in partnership with drivers, the road transport industry and governments, play an essential role in keeping all road users safe. Together we are working towards further reducing, and eventually eliminating, deaths and injuries from vehicle crashes on Australian roads.

Dr Geoff Allan
Chief Executive
Austroads

Dr Gillian Miles
Chief Executive Officer and Commissioner
National Transport Commission

Contents

A web version of the medical standards is available from the Austroads website: www.austroads.com.au

PART A.
Fitness to drive principles and practices

1. About this publication

1.1. Purpose

Driving a motor vehicle is a complex task involving perception, appropriate judgement, adequate response time and appropriate physical capability. A range of medical conditions, disabilities and treatments may influence these driving prerequisites. Such impairment may adversely affect driving ability, possibly resulting in a crash causing death or injury.

The primary purpose of this publication is to increase road safety in Australia by assisting health professionals to:

- assess the fitness to drive of their patients in a consistent and appropriate manner based on current medical evidence
- promote the responsible behaviour of their patients, having regard to their medical fitness
- conduct medical examinations for the licensing of drivers as required by state and territory driver licensing authorities
- provide information to inform decisions on conditional licences
- recognise the extent and limits of their professional and legal obligations with respect to reporting fitness to drive.

The publication also aims to provide guidance to driver licensing authorities in making licensing decisions. With these aims in mind the publication:

- outlines clear medical requirements for driver capability based on available evidence and expert medical opinion
- clearly differentiates between national minimum standards (approved by the Infrastructure and Transport Ministers' Meeting) for drivers of commercial and private vehicles
- provides general guidelines for managing patients with respect to their fitness to drive
- outlines the legal obligations for health professionals, driver licensing authorities and drivers
- provides a reporting template to guide reporting to the driver licensing authority if required
- provides links to supporting and substantiating information.

Routine use of these standards will ensure the fitness to drive of each patient is assessed in a consistent manner. In doing so, the health professional will not only be contributing to road safety but may minimise medico-legal exposure in the event that a patient is involved in a crash or disputes a licensing decision.

This publication replaces all previous publications containing medical standards for private and commercial vehicle drivers including ***Assessing fitness to drive 2001, 2003, 2012, 2016 (and its 2017 amendment) and Medical Examinations for Commercial Vehicle Drivers 1997.***

1.2. Target audience

This publication is intended for use by any health professional who is involved in assessing a person's fitness to drive or providing information to support fitness-to-drive decisions including:

- medical practitioners (general practitioners and specialists)
- optometrists
- orthoptists
- occupational therapists
- psychologists
- physiotherapists
- diabetes educators
- nurse practitioners and primary health care nurses
- case workers.

The publication is also a primary source of requirements for driver licensing authorities in making determinations about medical fitness to hold a driver licence.

1.3. Scope

1.3.1. Medical fitness for driver licensing

This publication is designed principally to guide and support assessments made by health professionals regarding fitness to drive for licensing purposes. It should be used by health professionals when:

1. Treating any patient who holds a driver licence whose condition may affect their ability to drive safely.

Most adults drive, therefore a health professional should routinely consider the impact of a patient's condition on their ability to drive safely. Awareness of a patient's occupation, licence category (e.g. commercial, passenger vehicle) or other driving requirements (e.g. shift work) is also helpful.

2. Undertaking an examination at the request of a driver licensing authority or industry accreditation body.

Health professionals may be requested to undertake a medical examination of a driver for a number of reasons. This may be:

- for initial licensing of some vehicle classes (e.g. multiple combination heavy vehicles)
- as a requirement for a conditional licence
- for assessing a person whose driving the driver licensing authority believes may be unsafe (i.e. 'for cause' examinations)
- for licence renewal of an older driver (in certain states and territories)
- for licensing or accreditation of certain commercial vehicle drivers (e.g. public passenger vehicle drivers)
- as a requirement for Basic or Advanced Fatigue Management under the National Heavy Vehicle Accreditation Scheme (refer to www.nhvr.gov.au).

This publication focuses on long-term health- and disability-related conditions and their associated functional effects that may impact on driving. It sets out clear minimum medical requirements for unconditional and conditional licences that form the medical basis of decisions made by the driver licensing authority. This publication also provides general guidance with respect to patient management for fitness to drive. It does not address general management of clinical conditions unless it relates to driving.

This publication outlines two sets of medical standards for driver licensing or authorisation: private vehicle driver standards and commercial vehicle driver standards.

The standards are intended for application to drivers who drive within the ambit of ordinary road laws. Drivers who are given special exemptions from these laws, such as emergency service vehicle drivers, should have a risk assessment and an appropriate level of medical standard applied by their employer. At a minimum, they should be assessed to the commercial vehicle standard.

1.3.2. Short-term fitness to drive

This publication does not attempt to address the full range of health conditions that might impact on a person's fitness to drive in the short term. Some guidance in this regard is included in section 2.2.3. Temporary conditions. In most instances, the non-driving period for short-term conditions will depend on individual circumstances and should be determined by the treating health professional based on an assessment of the condition and the potential risks.

1.3.3. Fitness for duty

The medical standards contained in this publication relate only to driving. They cannot be assumed to apply to fitness-for-duty assessments (including fitness for tasks such as checking loads, conversing with passengers and undertaking emergency procedures) without first undertaking a task risk assessment that identifies the range of other requirements for a particular job.

1.4. Content

This publication is presented in three parts.

Part A comprises general information including:

- the principles of assessing fitness to drive
- specific considerations including:
  - the assessment of people with multiple medical conditions or age-related change
  - the management of temporary conditions, progressive disorders and undifferentiated illness
  - the effects of prescription and over-the-counter drugs
  - the role of practical driver assessments and driver rehabilitation
- the roles and responsibilities of drivers, licensing authorities and health professionals
- what standards to apply (private or commercial) for particular driver classes
- the application of conditional licences
- the steps involved in assessing fitness to drive.

Part B comprises a series of chapters relating to relevant medical systems/diseases. The medical requirements for unconditional and conditional licences are summarised in a tabulated format to differentiate between the requirements for private and commercial vehicle drivers. Additional information, including the rationale for the standards, as well as a general assessment and management considerations, is provided in the supporting text of each chapter.

Part C, the appendices, comprises further supporting information including:

- regulatory requirements for driver assessment in each jurisdiction
- guidance on forms for the examination process and reporting to the driver licensing authority
- legislation relating to driver and health professional reporting of medical conditions

- legislation relating to blood alcohol, seatbelt use, helmet use and alcohol interlocks
- contacts for services relating to disabled parking and transport, occupational therapist assessments and driver licensing authorities.

1.5. Development and evidence base

The evidence that underpin the licensing criteria and guidance are sourced from medical and fitness-to-drive studies, medical guidelines and expert opinion. A reference list of important studies is provided at the end of each chapter. In addition to evidence regarding crash risk and the effects of medical conditions on driving, evidence has also been sought regarding best practice approaches to driver assessment and rehabilitation.

A key input in terms of evidence for the licensing criteria remains the Monash University Accident Research Centre report *Influence of chronic illness on crash involvement of motor vehicle drivers: 3rd edition*. This is an update of the second (2010) edition of the report and provides a comprehensive review of published studies involving drivers of private and commercial motor vehicles. The report investigates the influence of selected medical conditions and impairments on crash involvement, in the context of condition prevalence and quality of evidence of crash involvement.[1,2]

In compiling this report, the Monash University Accident Research Centre led an international research consortium to compile, review and interpret the best available evidence on each topic. Nevertheless, for most conditions, the report acknowledges the limited evidence available and that the quality of evidence is variable. In interpreting the research, there is therefore a need to consider several sources of potential bias including the following:

- There is a 'healthy driver' effect whereby drivers with a medical condition may recognise that they are not able to fully control a car and may either cease driving or restrict their driving. Their opportunity to be in a crash is therefore reduced, and this contributes to a lower crash risk than may otherwise be expected.
- The definition and incidence of crashes when driving often depends on self-reporting, which may lead to over- or under-reporting in some studies.
- The definition of a 'medical condition' is by self-report in some studies and may not be accurate.
- The 'exposure metric' (i.e. kilometres travelled) is often not controlled for, yet is crucial for determining the risk of a crash.
- Sample sizes may be small and not represent the general population of drivers.
- The control group may not be properly matched by age and sex.
- Commercial drivers are rarely considered as a separate cohort, and generalisations based on evidence from private motor vehicle drivers may not be appropriate.
- Studies rarely identify whether and how drivers are treated/untreated – for example, corrected vision for those with vision impairments and hearing aids for those with hearing impairments.
- Comorbidities may not be adjusted for (e.g. alcohol dependence).

The implications are that false-negative results may occur whereby the condition appears to have no effect or minimal effect on driving safety. The authors acknowledge that care should be taken in interpreting the literature and that professional opinion plus other relevant data should be taken into account in determining the risks posed by medical conditions. The authors also note that the review focused on published peer-reviewed literature. There was no inclusion of technical reports, conference presentations or abstracts, case studies, coroner reports or studies, cohort studies (without a control group) or reviews of consensus-based medical standards for any of the medical conditions reviewed.

For the purposes of this publication the term ‘crash’ refers to a collision between two or more vehicles, or any other accident or incident involving a vehicle in which a person or animal is killed or injured, or property is damaged.

Health professionals should also keep themselves up to date with changes in medical knowledge and technology that may influence their assessment of drivers, and with legislation that may affect the duties of the health professional or the patient.

2. Assessing fitness to drive – general guidance

The aim of determining fitness to drive is to achieve a balance between:

- minimising any driving-related road safety risks for the individual and the community posed by the driver's permanent or long-term injury or illness,
- maintaining the driver's lifestyle and employment-related mobility independence.

The key question is: Is there a likelihood the person will be unable to control the vehicle and/or unable to act or react to the driving environment in a safe, consistent and timely manner?

The main considerations in making this assessment are:

- the driving task, including the person's individual driving requirements and mobility needs (refer to section 2.1. The driving task)
- the potential impacts of medical conditions, disabilities and treatments (refer to section 2.2. Impact of medical conditions on driving)
- the driver's functional abilities including their capacity to compensate and the need for rehabilitation (refer to section 2.3. Assessing and supporting functional driver capacity).

The general guidance provided in this section should be considered in conjunction with the specific criteria and management guidelines for individual conditions outlined in Part B of this publication.

In light of the information gathered across these areas, the health professional may advise the patient regarding their fitness to drive and provide advice to the driver licensing authority (refer to section 3. Roles and responsibilities). The threshold tolerance is much less for commercial vehicle drivers where there is the potential for more time on the road and more severe consequences in the event of a crash (refer to section 4.1. Medical standards for private and commercial vehicle drivers). In cases where a person may only be fit to drive in some circumstances or requires periodic review to monitor the progression of their condition, the health professional may advise conditions under which driving could be performed safely (refer to section 4.4. Conditional licences).

Detailed steps for performing the assessment and managing the outcome are found in section 5. Assessment and reporting process – step by step.

2.1. The driving task

An understanding of the driving task, both generally and for the specific driver, underpins the assessment of fitness to drive and guides the determination of risk associated with impairment due to ill health.

Driving is a complex instrumental activity of daily living, characterised by a rapidly repeating cycle in which:

- Information about the vehicle and road environment is obtained via the visual and auditory senses.
- The information is operated on by several cognitive processes, which leads to decisions about driving.
- Decisions are put into effect via the musculoskeletal system, which acts on the various controls to alter the vehicle in relation to the road (refer to Figure 1).

This repeating sequence depends on:

Sensory input
- vision
- visuospatial perception
- hearing
- proprioception
- kinesthesia

Motor function
- muscle power
- coordination

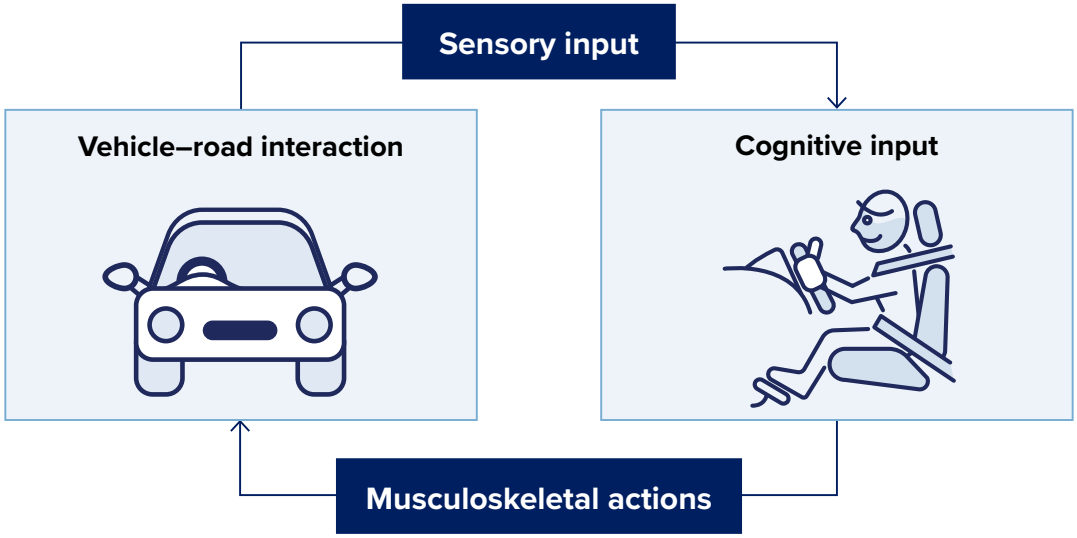
Cognitive function
- attention and concentration
- comprehension
- memory
- insight
- judgement
- decision making
- reaction time
- sensation.

Given these requirements, it follows that many body systems need to be functional to ensure safe and timely execution of the skills required for driving.

Furthermore, the demands of the specific driving task can vary considerably depending on a range of factors including those relating to the driver, the vehicle, the purpose of the driving task and the road environment (Box 1). For commercial drivers in particular these demands can be significant, as can be the consequences for public safety.

Assessing health professionals should document the individual's driving requirements and driving history as part of the assessment process.

Figure 1. The driving task



Box 1. Factors affecting driving

Driving tasks occur within a dynamic system influenced by complex driver, vehicle, task, organisational and external road environment factors including:

- the driver's experience, training and attitude
- the driver's physical, mental and emotional health – for example, fatigue and the effect of substance misuse including illicit, prescription and non-prescription drugs
- the road system – for example, signs, other road users, traffic characteristics and road layout
- legal requirements – for example, speed limits and blood alcohol concentration
- the natural environment – for example, night, extremes of weather and glare
- vehicle and equipment characteristics – for example, the type of vehicle, braking performance and maintenance
- mental workload and distraction due to in-vehicle technologies (e.g. GPS, vehicle warning/alert systems, driver assistance systems) and communication systems (hands-free phone/email systems)
- personal requirements, trip purpose, destination, appointments, navigation tasks and time pressures
- passengers, in-vehicle communication/entertainment devices and their potential to distract the driver.

For **commercial or heavy vehicle drivers** there is a range of additional factors including:

- business requirements – for example, rosters (shifts), driver training and contractual demands
- work-related multitasking – for example, interacting with in-vehicle technologies such as a GPS, job display screens or other communication systems
- legal requirements – for example, work diaries and licensing procedures
- vehicle issues including size, stability and load distribution
- passenger requirements/issues – for example, duty of care, communication requirements and potential for occupational violence
- risks associated with carrying dangerous goods
- additional skills required to manage the vehicle – for example, turning and braking
- endurance/fatigue and vigilance demands associated with long periods spent on the road.

2.2. Impact of medical conditions on driving

2.2.1. Assessing medical conditions

Reflecting the requirements of the driving task (section 2.1. The driving task), the key domains to consider when assessing the impact of medical conditions and disabilities on driving are:

- impairment of:
  - sensory function (in particular, visual acuity and visual fields but also cutaneous, muscle and joint sensation)
  - motor function (e.g. joint movements, strength, endurance and coordination)
  - cognition (e.g. attention, concentration, memory, problem-solving skills, thought processing, visuospatial skills, insight and judgement)
- the risk of sudden incapacity (leading to sudden loss of control of the vehicle).

Such impacts may be associated with a range of medical conditions. Conditions with the potential to cause significant impairment and/or sudden incapacity are the focus of this publication and include:

- blackouts
- cardiovascular conditions
- diabetes
- hearing loss and deafness
- musculoskeletal conditions
- neurological conditions
- psychiatric conditions
- substance misuse/dependency
- sleep disorders
- vision problems.

The impairments/impacts associated with medical conditions may be framed in a number of ways. For example, impairments may:

- Be persistent (e.g. visual impairment) or episodic (e.g. seizure, severe hypoglycaemic event). Drivers with persistent impairments can be assessed based on observations and measures of their functional capacity. Those with episodic impairment must be assessed based on a risk analysis that considers the probability and consequence of the episode, as well as any triggering factors and whether they can be avoided.
- Fluctuate, for example, the capacity of people living with dementia can fluctuate both day to day and within a 24-hour period. It is important that the assessor considers the potential of fluctuating capacity and the impact these factors may have on driving ability.
- Be progressive (e.g. dementia, progressive neurological conditions, end-organ affects associated with diabetes) or static (permanent disabilities), which has implications for ongoing monitoring (refer to section 2.2.5. Progressive conditions). Many people with a long-term condition or disability may have developed coping strategies to enable safe driving (refer to section 2.2.6. Congenital conditions, disability and driving).
- Become introduced through use of medications that effect cognition and reaction time (refer to section 2.2.9. Drugs and driving).
- Resolve with treatment (e.g. following rehabilitation for stroke), which has implications for reinstating of unconditional licences (refer to section 4.5. Reinstatement of licences or removal or variation of licence conditions).

2.2.2. Conditions not covered explicitly in this publication

This publication does not attempt to define all clinical situations that may influence safe driving ability.

It is accepted that other medical conditions or combinations of conditions may also be relevant and that it is not possible to define all clinical situations where an individual's overall function would compromise public safety. A degree of professional judgement is therefore required in assessing fitness to drive.

The examining health professional should follow general principles when assessing these patients including consideration of the driving task and the potential impact of the condition on requirements such as sensory, motor and cognitive skills. Episodic conditions need consideration regarding the likelihood of recurrence. A more stringent threshold should be applied to drivers of commercial vehicles than to private vehicle drivers. An appropriate period should be advised for review, depending on the natural history of the condition.

2.2.3. Temporary conditions

This publication does not attempt to address every condition or situation that might temporarily affect safe driving ability.

There are a wide range of conditions that temporarily affect the ability to drive safely. These include conditions such as post-surgery recovery, severe migraine or injuries to limbs. These conditions are self-limiting and hence do not affect licence status; therefore, the licensing authority does not need to be informed.

The treating health professional should provide suitable advice to such patients about driving safely including recommended periods of abstinence from driving, particularly for commercial vehicle drivers. Such advice should consider the likely impact of the patient's condition and their specific circumstances on the driving task as well as their specific driving requirements. Table 1 provides guidance on some common conditions that may temporarily affect driving ability.

2.2.4. Undifferentiated conditions

A patient may present with symptoms that could have implications for their licence status but where the diagnosis is not clear. Investigating the symptoms will mean there is a period of uncertainty before a definitive diagnosis is made and before the licensing requirements can be confidently applied.

Each situation will need to be assessed individually, with due consideration given to the probability of a serious disease or long-term injury or illness that may affect driving, and to the circumstances in which driving is required. However, patients presenting with symptoms of a serious nature – for example, chest pains, dizzy spells, blackouts or delusional states – should be advised not to drive until their condition can be adequately assessed. During this interim period, in the case of private vehicle drivers, no formal communication with the driver licensing authority is required unless there is significant risk to public health (refer to section 3.3.1. Confidentiality, privacy and reporting to the driver licensing authority). After a diagnosis is firmly established and the standards applied, normal notification procedures apply.

In the case of a commercial vehicle driver presenting with symptoms of a potentially serious nature, the driver should be advised to stop driving and to notify the driver licensing authority. The health professional should consider the impact on the driver's livelihood and investigate the condition as quickly as possible.

Table 1. Examples of how to manage temporary conditions

Condition and impact on driving	Management guidelines
Anaesthesia and sedation[3] Physical and mental capacity may be impaired for some time post anaesthesia (including general anaesthesia, local anaesthesia and sedation). The effects of general anaesthesia will depend on factors such as the duration of anaesthesia, the drugs administered and the surgery performed. The effect of local anaesthesia will depend on dosage and the region of administration. Analgesic and sedative use should also be considered.	In cases of recovery following surgery or procedures under general anaesthesia, local anaesthesia or sedation, it is the responsibility of the surgeon/dentist and anaesthetist to advise patients not to drive until physical and mental recovery is compatible with safe driving. • Following minor procedures under local anaesthesia without sedation (e.g. dental block), driving may be acceptable immediately after the procedure. • Following brief surgery or procedures with short-acting anaesthetic drugs or sedation, the patient may be fit to drive after a normal night's sleep. • After longer surgery or procedures requiring general anaesthesia or sedation, it may not be safe to drive for 24 hours or more.
Deep vein thrombosis and pulmonary embolism While deep vein thrombosis may lead to an acute pulmonary embolus, there is little evidence that such an event causes crashes. Therefore there is no licensing standard applied to either condition. Non-driving periods are advised. If long-term anticoagulation treatment is prescribed, the standard for anticoagulant therapy should be applied (refer to Part B section 2.2.8. Long-term anticoagulant therapy).	Private and commercial vehicle drivers should be advised not to drive for at least 2 weeks following a deep vein thrombosis and for 6 weeks following a pulmonary embolism.
Medications or other treatments Adaptation to new drug/medication regimens or undergoing some treatments (e.g. radiation therapy or haemodialysis) may require a non-driving period.	The non-driving period should be determined by the treating health professionals based on a consideration of the requirements of the driving task and the impact of medications or treatments on the capacity to undertake these tasks, including responding to emergency situations. A practical driver assessment may be helpful in determining fitness to drive (refer to section 2.3.1. Practical driver assessments).
Post-surgery Surgery will affect driving ability to varying degrees depending on the location, nature and extent of the procedure.	The non-driving period post-surgery should be determined by the treating health professionals based on a consideration of the requirements of the driving task and the impact of the surgery on the capacity to undertake these tasks, including responding to emergency situations. A practical driver assessment may be helpful in determining fitness to drive (refer to section 2.3.1. Practical driver assessments).

Condition and impact on driving	Management guidelines
Pregnancy Under normal circumstances pregnancy should not be considered a barrier to driving. However, conditions that may be associated with some pregnancies should be considered when advising patients. These include: • fainting or light-headedness • hyperemesis gravidarum • hypertension of pregnancy • post caesarean section.	A caution regarding driving may be required depending on the severity of symptoms and the expected effects of medication. Seatbelts must be worn (refer to Appendix 7. Seatbelt use).
Temporary or short-term vision impairments A number of conditions and treatments may impair vision in the short term – for example, temporary patching of an eye, use of mydriatics or other drugs known to impair vision, or eye surgery. For long-term vision problems, refer to Part B section 10. Vision and eye disorders.	People whose vision is temporarily impaired by a short-term eye condition or an eye treatment should be advised not to drive for an appropriate period.

2.2.5. Progressive conditions

Often diagnoses of progressive conditions are made well before there is a need to question whether the patient remains safe to drive (e.g. multiple sclerosis, early dementia). However, it is important to raise issues relating to the likely effects of these disorders on personal independent mobility early in the management process.

The patient should be advised appropriately where a progressive condition is diagnosed that may result in future restrictions on driving. It is important to give the patient as much lead time as possible to make the lifestyle changes that may later be required (e.g. adaptation to using public transport and/or a motorised mobility device). Assistance from an occupational therapist may be valuable in such instances (refer to Part B section 6.1. Dementia).

2.2.6. Congenital conditions, disability and driving

Congenital conditions and long-term or permanent disabilities may have an impact on a person's ability to drive safely. The physical and cognitive implications of such conditions may include (but are not limited to):

- difficulty sustaining concentration or switching attention between multiple driving tasks
- reduced cognitive and perceptual processing speeds, including reaction times
- reduced performance in complex situations (e.g. when there are multiple distractions)
- reduced information processing and judgement
- difficulty anticipating and responding to other road users
- difficulty controlling movement
- reduced joint range of motion and muscle strength.

These impacts vary and many people develop coping strategies to enable safe driving.

Individual assessment is therefore required based the general principles, the stability of the disability and bodily systems that underpin any adaptive behaviours for driving.

Legal obligations for reporting to the driver licensing authority apply (refer to section 3.2. Roles and responsibilities of drivers). This may trigger the need to provide a medical report and/or an occupational therapy driving assessment. An occupational therapist driver assessor can provide information about how a condition or disability may affect driving or learning to drive. They can also offer advice about potential aids, vehicle modifications or training strategies that may assist the individual.

The outcomes of the assessment may result in the requirement of a conditional licence relating to the driver (e.g. prosthesis must be worn) or the vehicle (e.g. can only drive a vehicle with certain modifications); refer to section 4.4. Conditional licences. If the condition or disability is assessed as static, then it is unlikely to require periodic review.

Learning to drive

People with a disability that may impact their ability to drive can seek the opportunity to gain a driver licence. This opportunity is increasingly available through the National Disability Insurance Scheme. To ensure they receive informed advice and reasonable opportunities for training, it is helpful if they are trained by a driving instructor with experience in teaching drivers with disabilities. An initial assessment with an occupational therapist specialised in driver evaluation may help to identify the pre-requisite functional capacity requirements to realistically aspire to driving independence, need for adaptive devices, vehicle modifications or special driving techniques.

National Disability Insurance Scheme

There are support options to help drivers with a disability through the National Disability Insurance Scheme (NDIS). The NDIS provides all Australians under the age of 65 who have a permanent and significant disability with reasonable and necessary supports.

The NDIS may provide assistance with the medical review process including obtaining a driver licence, medical reports, occupational therapist driving assessments, driver training and vehicle modifications. Further information about the support provided by the NDIS and how to access the services can be found on the NDIS website at www.ndis.gov.au.

2.2.7. Older drivers and age-related changes

While advanced age in itself is not a barrier to safe driving, age-related physical and mental changes will eventually affect a person's ability to drive safely. Given the association between health outcomes, mobility and social connectedness, fitness to drive should be proactively managed, with the goal of enabling older people to continue to drive for as long as it is safe to do so.

Crash data points to some of the vulnerabilities of older drivers, showing that they are more likely to crash at intersections and with other vehicles (multi-vehicle crashes). Frailty of older drivers is also associated with higher risk of injury and death. At the same time, safety risks for older drivers may be mitigated by their extensive driving experience and their tendency to modify their driving to suit their capabilities, including avoiding peak-hour traffic, poor weather and night driving, and driving at slower speeds.

Management approach

A proactive approach to management of older drivers encompasses primary, secondary and tertiary prevention.

Discussions about mobility and driving

Talking with an older person about their driving can be difficult, particularly if it is delayed until the conversation is about ceasing driving. Early conversations focused on maintenance of driving ability in the context of their general health, mobility needs and other activities of daily living can help build self-awareness, enable self-monitoring and normalise the eventual transition to non-driving. Driver licensing authorities provide resources to support conversations with older drivers and their carers/families.

Active observation and screening

Routine care of the older person should include monitoring for decline in the functions necessary for driving, including vision, cognition and motor/sensory functions (see below). This is also an opportunity to pick up on 'red flags' such as falls, memory problems, confusion, caregiver concerns or a sudden change in social circumstances. Annual checks, such as through the Medicare 75 Plus health check, provide an opportunity for screening and for considering the overall impacts of ageing and multiple medical conditions on driving.

Early intervention

Early identification of functional decline can provide opportunities to address driving skills and capabilities in at-risk drivers. This may involve referral for relevant assessment and management (e.g. allied health, driver assessment), including treatments, driving rehabilitation, vehicle modifications and driving restrictions (refer to section 2.3. Assessing and supporting functional driver capacity). In cases where an older person is not fully fit to drive in all circumstances, the health professional may advise conditions under which driving could be performed safely (refer to section 4.4. Conditional licences). Referral to a geriatrician may also assist if there is doubt about a patient's fitness to drive or about remedial strategies.

Considering the impact of medical conditions on driving

Most older adults have at least one chronic medical condition. The most common conditions include cardiovascular disease, stroke, Parkinson's disease, sleep disorders, cataracts, glaucoma, musculoskeletal impairments including arthritis, depression, dementia and diabetes. The overall impact of multiple conditions on driving will need to be considered (refer to section 2.2.8. Multiple medical conditions). A new diagnosis or change in any condition, or an acute medical event, is a trigger to revisit driving, so too is the addition of a new medication or treatment. Older adults often take multiple medications, and this is associated with increased crash risk. Counselling regarding medications should specifically address potential safety concerns for driving, including any age-associated effects such as changed drug metabolism (refer to section 2.2.9. Drugs and driving).

Transition to alternative means of transport

Ultimately, when a person's functioning is no longer compatible with safe driving, they will need to be supported in relinquishing their licence and seeking alternative modes of transport. There is a role for ongoing monitoring of health and social consequences and compliance with advice not to drive. Caregivers play an important role in encouraging the older person to cease driving and to help the individual find alternatives.

Assessing older drivers

Age-related physical and mental changes vary greatly between individuals. The three main functional areas to consider for the assessment and routine care of older drivers are described below. Health professionals should be mindful that a driver may have several minor impairments that alone may not affect driving but when taken together may make risks associated with driving unacceptable (refer to section 2.2.8. Multiple medical conditions).

Some driver licensing authorities require regular medical examination or assessment of drivers beyond a specified age. These requirements vary between jurisdictions and may be viewed in Appendix 1. Regulatory requirements for driver testing.

Vision

Various aspects of vision may decline with age, including acuity, visual fields and contrast sensitivity. Eye conditions such as cataracts, glaucoma and macular degeneration are also more common in older people. The gradual changes associated with ageing and the gradual onset of eye conditions may not be noticed by the driver. Regular eye health checks may facilitate early detection and management for changes in vision. Difficulty driving at night and problems with glare may be early signs of age-related visual decline and may be investigated in routine conversations. Driving restrictions/conditions such as no-night driving can help maintain safe driving, while removal of cataracts can effectively restore vision for driving. (Refer also to section 4.4. Conditional licences and Part B section 10. Vision and eye disorders).

Cognition

Various aspects of cognitive processing required for safe driving can decline with age, including memory, working memory, visual processing, visuospatial skills, attention functioning, executive functioning and insight. These impairments can affect a person's ability to process and respond to the complex road environment. The impairments can vary from day to day, which can present a challenge for definitive assessment in relation to driving. Dementia is a particular concern as older adults with dementia often lack insight into their deficits and may be more likely to drive when it is unsafe (refer also to Part B section 6.1. Dementia).

Motor and somatosensory function

Ageing generally results in a decline in muscle strength and endurance, as well as reduced flexibility, range of movement and joint stability. Musculoskeletal conditions such as arthritis are also more prevalent in older adults. These and other general health conditions may be associated with chronic pain and fatigue. Proprioception may also be an issue.

Older adults with these impairments may have difficulties getting in and out of the car, using the seatbelt and ignition key, adjusting mirrors and seats, steering, turning to reverse, and using foot pedals. Adaptative equipment, some requiring professional recommendation, is available to support drivers experiencing pain, reduced reach or reduced strength. Rehabilitative therapies may improve the older driver's functioning and endurance (refer to section 2.3.2 Driver rehabilitation, Part B section 5. Musculoskeletal conditions).

More information

Reference to the Royal Australian College of General Practitioners' *Guidelines for preventative activities in general practice* (the 'Red Book') and the *Aged care clinical guide* (the 'Silver Book') may assist in assessing older drivers.[3,4] Additional resources and references that may support assessment are provided in Part A, References and further reading.[5–11]

2.2.8. Multiple medical conditions

Where a vehicle driver has multiple conditions or a condition that affects multiple body systems, there may be an additive or a compounding detrimental effect on driving abilities – for example in:

- congenital disabilities such as cerebral palsy, spina bifida and various syndromes
- multiple trauma causing orthopaedic and neurological injuries as well as psychiatric sequelae
- multi-system diseases such as diabetes, connective tissue disease, multiple sclerosis and systemic lupus erythematosus
- dual diagnoses involving psychiatric illness and drug or alcohol addiction
- ageing-related changes in motor, cognitive and sensory abilities together with degenerative disease
- chronic pain.

Although these medical standards are designed principally around individual conditions, clinical judgement is needed to integrate and consider the effects on safe driving of any medical conditions and disabilities that a patient may present with. However, it is insufficient simply to apply the medical standards contained in this publication for each condition separately because a driver may have several minor impairments that alone may not affect driving but when taken together may make risks associated with driving unacceptable. Therefore, it is necessary to integrate all clinical information, bearing in mind the additive or compounding effect of each condition on the overall capacity of the patient to drive safely.

Where one or more conditions are progressive, it may be important to reduce driving exposure and ensure ongoing monitoring of the patient (refer to section 2.2.5. Progressive conditions). Conditional licences that may limit the driver (e.g. no night driving) or place requirements on the vehicle (e.g. automatic transmission only) are an option in these circumstances (refer to section 4.4. Conditional licences). The requirement for periodic reviews can be included as recommendations on driver licences.

Periodic reviews are also important for drivers with conditions likely to be associated with future reductions in insight and self-regulation. If lack of insight may become an issue in the future, it is important to advise the patient to report the condition(s) to the driver licensing authority. Where lack of insight already appears to impair self-assessment and judgement, public safety interests should prevail, and the health professional should report the matter directly to the driver licensing authority and, if appropriate, seek the support of the patient's family members.

2.2.9. Drugs and driving

Any drug that acts on the central nervous system has the potential to adversely affect driving skills. Central nervous system depressants, for example, may reduce vigilance, increase reaction times and impair decision making in a very similar way to alcohol. In addition, drugs that affect behaviour may exaggerate adverse behavioural traits and introduce risk-taking behaviours.

Where medication is relevant to the overall assessment of fitness to drive in managing specific conditions such as diabetes, epilepsy and psychiatric conditions, this is covered in

the respective chapters. Prescribing doctors and dispensing pharmacists do, however, need to be mindful of the potential effects of all prescribed and over-the-counter medicines and to advise patients accordingly. Patients receiving continuing long-term drug treatment should be evaluated for their reliability in taking the drug according to directions. They should also be assessed for their understanding that medicines can have undesired consequences that may impair their ability to drive safely and this may be unexpectedly affected by other factors such as drug interactions.

General guidance for prescription drugs and driving

While many drugs have effects on the central nervous system, most, with the exception of benzodiazepines, tend not to pose a significantly increased crash risk when the drugs are used as prescribed and once the patient is stabilised on the treatment. This may also relate to drivers self-regulating their driving behaviour. When advising patients and considering their general fitness to drive, whether in the short or longer term, health professionals should consider:

- the balance between potential impairment due to the drug and the patient's improvement in health on safe driving ability
- the individual response of the patient – some people are more affected than others
- the type of licence held and the nature of the driving task (i.e. commercial vehicle driver assessments should be more stringent)
- the added risks of combining two or more drugs capable of causing impairment, including alcohol
- the added risks of sleep deprivation on fatigue while driving, which is particularly relevant to commercial vehicle drivers
- the potential impact of changing medications or changing dosage
- the cumulative effects of medications
- the presence of other medical conditions that may combine to adversely affect driving ability
- other factors that may exacerbate risks such as known history of alcohol or drug misuse.

Acute alcohol and drug intoxication

Acute impairment due to alcohol or drugs (including illicit, prescription and over-the-counter drugs) is managed through specific road safety legislation that prohibits driving over a certain blood alcohol concentration (BAC), with the presence of certain drugs in bodily fluids, or when driving is impaired by drugs (refer to Appendix 4. Drivers' legal BAC limits). This may include requirements for using alcohol interlocks, the application of which varies between jurisdictions (refer to Appendix 5. Alcohol interlock programs). This is a separate consideration to long-term medical fitness to drive and licensing, therefore specific medical requirements are not provided in this publication. Dependency and substance misuse, including chronic misuse of illicit, non-prescription and prescription drugs, is a licensing issue and standards are outlined in Part B section 9. Substance misuse.

Further guidance for prescribing drugs of dependence can be found in the Royal Australian College of General Practitioners' guide *Prescribing drugs of dependence in general practice* (visit www.racgp.org.au).

The effects of specific drug classes[13,14]

Medicinal cannabis (cannabinoids)[15–25,36,37]

Medicinal cannabis refers to medically prescribed cannabis preparations intended for therapeutic use, including pharmaceutical cannabis preparations with set amounts of cannabinoids such as oils, tinctures, sprays and other extracts. The main active components of cannabis (medicinal or recreational) are delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD). THC, the psychoactive ingredient in cannabis (including medicinal), can cause cognitive and psychomotor impairments that degrade the ability to drive safely including attention and concentration deficits, mild cognitive impairment, dizziness and anxiety. These deficits can begin at low doses and are highly individualised.

The pharmacokinetics of cannabinoids are complex, making it difficult to predict the severity of impairment. Other influencing factors include the history of use, frequency of dose, ratio of cannabinoids and route of administration (vaporised, oral, oral-mucosal, transdermal). The onset and duration of impairing effects can vary significantly between individuals. The effects can typically last for three to six hours after inhalation or five to eight hours after oral administration, but may be significantly longer for either route of administration and should be determined individually. Further information on the route of administration and THC pharmacokinetic/pharmacodynamics can be found in the TGA's *Guidance for the use of medicinal cannabis in Australia – overview* (https://www.tga.gov.au/publication/guidance-use-medicinal-cannabis-australia-overview).

Based on current evidence, CBD does not cause psychomotor or cognitive impairment or strong psychoactive effects. CBD may produce side effects including sedation or fatigue, which can be more pronounced at higher doses. CBD may interact with other prescribed medication, potentially increasing the risk of driving impairment. The effects of other cannabinoids have not been systematically studied.

Managing medicinal cannabis and driving

Strategies to mitigate or manage THC impairments include a 'start low, go slow' approach to treatment and administration during periods when an individual is unlikely to drive (e.g. at night before sleep). A period of restricted or non-driving, generally a minimum of four weeks, may be considered while adaptation to medication and treatment outcomes are determined.

Medicinal cannabis (THC and CBD) can interact with other medications, impairing the metabolism of other drugs or causing cumulative effects such as sedation, which can increase the road safety risk. Alcohol should be avoided when taking medicinal cannabis due to the significant additive effects and the increased risk of having a crash. CBD may effect the metabolism of certain antiseizure drugs, elevating plasma levels of other drugs, including some benzodiazepines.

Assessing fitness to drive

Fitness-to-drive assessments for the underlying chronic medical condition or disability treated with medicinal cannabis can be undertaken as per the applicable standards. The assessment should consider the nature of the driving task, impairment of cognitive, visuospatial and motor control functions from the condition or medications, and treatment outcomes. Conditions with specific standards, such as seizures (Part B section 6.2. Seizures and epilepsy) or chronic pain (Part B section 5. Musculoskeletal conditions), may consider medicinal cannabis under the existing criteria. Conditions without specific criteria in Part B. Medical standards may be assessed according to section 2. Assessing fitness to drive – general guidance.

Medicinal cannabis and commercial licence holders

Assessments against the commercial licensing medical standards are more stringent than the private standards and reflect increased driver exposure and the increased risk associated with motor vehicle crashes involving these vehicles. Sleep deprivation or fatigue while driving are common risks among commercial vehicle drivers. Particular attention should be paid to the commercial vehicle driving task. Considerations may include the vehicle type, the nature of goods transported, the distances and roads being travelled, the cumulative time driving over a work period, and whether driving will occur at night or disrupt normal sleep patterns. Impacts of driving patterns on dosage requirements may also be relevant.

Medicinal cannabis and drug driving laws

Drug driving and enforcement laws for cannabis are established through state and territory legislation and can vary. In general, it is against the law for a person to drive with any amount of THC present in their bodily fluids (blood, saliva or urine). In most states and territories there are no exceptions to these laws, including therapeutic use. Tasmanian law provides a medical defence for driving with the presence of THC in bodily fluids. The medical defence only applies if the medicinal cannabis is obtained and administered in accordance with the *Poisons Act 1971* (Tas). It remains illegal for these patients to drive if impaired by THC and they must still comply with directions given by law enforcement regarding roadside testing.

Drivers prescribed medicinal cannabis in one jurisdiction may be treated differently if driving in another. The individual's driving needs, including interstate travel and licensing classes, should be discussed when considering prescribing medicinal cannabis, and it is critical to identify if driving is required as part of their occupation.

Point-of-prescription advice regarding medicinal cannabis and driving

The implications of drug driving regulations and THC should be discussed at the point of prescription and reviewed routinely with the patient as part of good fitness-to-drive medical management. In addition to the legal consequences, there may also be insurance implications for patients who are convicted of drug driving offences. CBD is not subject to these controls and can be used while driving, so long as treatment is free of side effects or drug interactions that may cause impairment. Specific information can be sourced from local driver licensing authorities, health departments or law enforcement agencies and should be consulted alongside the information presented here.

Possible drug-seeking behaviour in those directly requesting cannabis as an alternative to, or to supplement, medicinal cannabis should be kept in mind. Medically prescribed cannabis is distinct from other sources of cannabis that people may access for illicit or unregulated medicinal purposes. These other products are highly variable in their cannabinoid content and can significantly increase the road safety risk. More information can be found in Part B section 9. Substance misuse.

Benzodiazepines[26]

Benzodiazepines are well known to increase the risk of a crash and are found in about 4 per cent of fatalities and 16 per cent of injured drivers taken to hospital. In many of these cases benzodiazepines were either abused or used in combination with other impairing substances. If a hypnotic is needed, a shorter acting drug is preferred. Tolerance to the sedative effects of the longer acting benzodiazepines used to treat anxiety gradually reduces their adverse impact on driving skills.

Antidepressants

Although antidepressants are one of the more commonly detected drug groups in fatally injured drivers, this tends to reflect their wide use in the community. The ability to impair is greater with sedating tricyclic antidepressants (e.g. amitriptyline and dothiepin) than with the less sedating serotonin and mixed reuptake inhibitors such as fluoxetine and sertraline. However, antidepressants can reduce the psychomotor and cognitive impairment caused by depression and return mood towards normal. This can improve driving performance.

Antipsychotics

This diverse class of drugs can improve performance if substantial psychotic-related cognitive deficits are present. However, most antipsychotics are sedating and have the potential to adversely affect driving skills through blocking central dopaminergic and other receptors. Older drugs such as chlorpromazine are very sedating due to their additional actions on the cholinergic and histamine receptors. Some newer drugs (clozapine, olanzapine, quetiapine) are also sedating, while others (aripiprazole, risperidone and ziprasidone) are less sedating. Sedation may be a particular problem early in treatment and at higher doses.

Opioids[27–31]

Opioid analgesics are central nervous system depressants and as such can suppress cognitive and psychomotor responses in driving situations. While cognitive performance is reduced early in treatment (largely due to their sedative effects) neuroadaptation is rapidly established. This means that patients on a stable dose of an opioid may not have a higher risk of a crash. This includes patients on buprenorphine and methadone for their opioid dependency, providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs. Driving at night may be a problem due to the persistent miotic effects of these drugs reducing peripheral vision.

Further guidance on opiate prescribing can be found from:

- the Royal Australian College of Physicians' *Prescription Opioid Policy: Improving management of chronic non-malignant pain and prevention of problems associated with prescription opioid use*[27]
- the Australian and New Zealand College of Anaesthetists and Faculty of Pain Management's *Statement regarding the use of opioid analgesics in patients with chronic non-cancer pain*[31]
- the Royal Australian College of General Practitioners' *Prescribing drugs of dependence in general practice*[28–30]
- local health agency websites.

2.3. Assessing and supporting functional driver capacity

2.3.1. Practical driver assessments

The impact of a medical condition or multiple conditions or disability on driving is not always clear, so a practical driver assessment may be useful. Such assessments are different from the tests of competency to drive used with entry-level drivers that are routinely conducted by driver licensing authorities for licensing purposes. These practical driver assessments are suitable only for persistent impairments.

When is a practical driver assessment indicated?

A practical driver assessment is designed to assess the impact of injury, illness, disability or the ageing process on driving skills including judgement, decision-making skills, observation and vehicle handling. The assessment may also be helpful in determining the need for special training in compensatory techniques or vehicle modification to assist drivers with musculoskeletal or other disabilities.

A health professional may request a practical driver assessment to provide information to supplement the clinical assessment in some borderline cases and to assist in making recommendations about a person's fitness to drive. However, practical assessments have limitations in that a patient's condition may fluctuate (good days and bad days), and it is not possible to create emergency situations on the road to assess reaction time. Practical assessments are therefore intended to inform but not necessarily override the clinical opinion of the examining health professional. In addition, there are clinical situations that are clearly unsuitable for on-road assessments such as significant visual impairment or significant cognitive impairment.

What types of assessments are available?

There is a wide range of practical assessments available, including off-road, on-road and driving simulator assessments, each with strengths and limitations. Assessments for cars, motorcycles, buses or heavy vehicles may be conducted or overseen by occupational therapists trained in driver assessment or by others approved by the particular driver licensing authority, such as training providers for commercial vehicle drivers. Processes for initiating and conducting driver assessments vary between the states and territories, and the choice of assessment depends on resource availability, logistics, cost and individual requirements. Generally, the assessments may be initiated by the examining health professional, other referrers (e.g. police, self, family) or by the driver licensing authority.

It is not the intent of this publication to specify the assessment to be used in a particular situation. Health professionals should contact their local driver licensing authority (Appendix 9. Driver licensing authority contacts) for details of options or refer to Appendix 10. Specialist driver assessors.

What does a practical assessment involve?

Occupational therapy driver assessment usually involves two components: (a) an off-road screening and (b) an in-car practical driver assessment. The purpose of the off-road screening is to evaluate the nature, frequency and requirement for driving, underlying impairments, knowledge of road law, insight, medical history and requirements for the on-road test. Depending on the individual situation, the occupational therapy driver in-car assessment may involve evaluating:

- the need for specialised equipment or vehicle modifications
- the driver's ability to control the motor vehicle truck, bus or motorcycle
- the driver's functional status while driving including cognitive function, physical strength and skills, reaction time, insight level and ability to self-monitor their driving.

Recommendations following assessment may relate to licence status, licence conditions, the specific vehicle modifications, rehabilitation or retraining (refer to section 2.3.2. Driver rehabilitation), licence conditions or restrictions (refer to section 4.4. Conditional licences) and reassessment.

Where can I go to get more information?

More information about occupational therapy driver assessments can be found in the VicRoads publication *Guidelines for Occupational therapy driver assessors, 3rd edition, March 2018*, available from the VicRoads website at www.vicroads.vic.gov.au/licences/health-and-driving/information-for-health-professionals/occupational-therapist.[32] Refer also to Appendix 10. Specialist driver assessors.

2.3.2. Driver rehabilitation[33–35]

A practical driver assessment may indicate a need for the person to participate in a rehabilitation or retraining program. A rehabilitation or retraining program will be developed based on the assessment results. It will be graded to increase the degree of difficulty or complexity in the task/environment and may include clinic-based activities, simulator or computer-based training, or on-road training with a driving instructor under the direction of an occupational therapist. It may also include training in the use of vehicle modifications or aids/adaptations as well as education to develop driver awareness and improve driving confidence. There is currently limited evidence to support the use of particular rehabilitation or retraining strategies. Designed and tested driving simulation activities may offer controlled and repeatable driving conditions for rehabilitation that are not available or limited in on-road driving situations, allowing practice and skills related to the behavioural, cognitive and physical skills related to driving.

On completing the rehabilitation program, a reassessment of the patient's driving skills may be made and a report sent to the driver licensing authority with recommendations regarding driver competency and licensing.

2.3.3. Equal employment opportunity and discrimination

The purpose of the standards, particularly for commercial vehicle driving, is to protect public safety. They should not be used as a barrier to employment per se. The system of conditional licences aims to support employability without compromising road safety by providing for periodic medical review and driving conditions as appropriate.

Commonwealth and state/territory legislation exists to protect workers against unfair discrimination based on disability. If a patient suspects they are being unfairly discriminated against based on the disability outlined on their conditional licence, they may contact their union or the Human Rights and Equal Opportunity Commission, or the relevant commission in their state or territory.

2.3.4. Information and assistance for drivers

Assessment by a health professional is one piece of information taken into account by the driver licensing authority in making a decision about the future licensing status of a person. The driver licensing authority may cancel, refuse or suspend a driver licence or place conditions on a licence. Because most people consider a driver licence critical to continued independence, employment and recreation, the risk of it being withdrawn can evoke strong emotions and reactions. Patients may become upset, anxious, frustrated or angry, especially if their livelihood or lifestyle is threatened (refer to section 3.3.2. Patient–health professional relationship).

In cases where licensing decisions may affect a patient's ability to earn a living, the health professional should demonstrate some sensitivity in the interests of ongoing patient health. Timely provision of medical reports is important in this regard. Offering some direction in developing coping strategies may help alleviate some of the patient's concerns or fears. Where appropriate, the health professional should consider direct referral rather than simply providing sources for further information. For example:

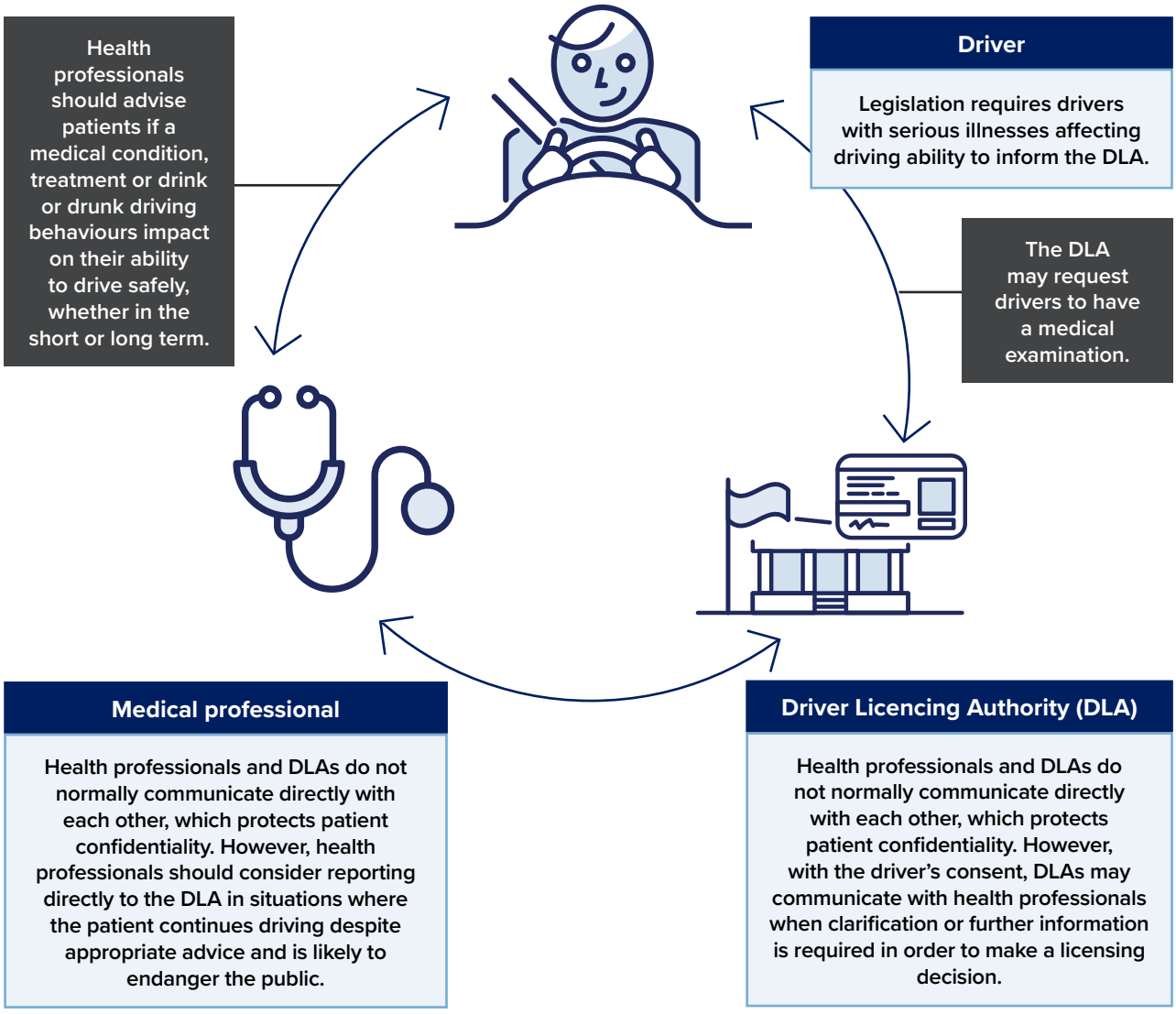
- Vocational assessors will assess a person's ability to rehabilitate, retrain and reskill for another industry, or a new sector within the industry.
- There may be government-funded assistance programs to support work-based assessments and workplace modifications including vehicle modifications.
- Condition-specific support and advocacy agencies may also offer advice, support and services – for example, Diabetes Australia, Dementia Australia, MS Australia, Epilepsy Action Australia and the Epilepsy Foundation.

For older drivers, early advice will help them plan for the inevitable changes in their independence. Some driver licensing authorities have a range of dedicated fact sheets explaining the impacts of ageing and common medical conditions on driving safety: check the licensing authority website in your state or territory.

3. Roles and responsibilities

The roles and responsibilities of those involved in fitness-to-drive assessments and decision making are summarised in Table 2 and discussed in this section. The descriptions and the relationships depicted in Figure 2 are generalised and may vary between states/territories in terms of legislative requirements. For specific requirements refer to Appendix 3. Legislation relating to reporting.

Figure 2. The relationships and interactions between the driver licensing authority, health professional and vehicle driver



DLA = driver licensing authority

The responsibility for issuing, renewing, suspending, refusing, cancelling or reinstating a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority. Licensing decisions are based on a full consideration of relevant factors relating to the driver's health and driving performance record.

Table 2. Key roles and responsibilities with respect to fitness to drive

Driver	Health professional	Driver licensing authority
• To report to the driver licensing authority any long-term or permanent injury, illness, medical condition, disability or treatment that may affect their ability to drive safely. • To respond truthfully to questions from a health professional about their health status and the likely impact on their driving ability. • To adhere to prescribed medical treatment. • To comply with requirements of a conditional licence as appropriate, including periodic medical reviews. • For drivers who have previously advised the driver licensing authority about their health and driving, to report any changes to their health that could affect their ability to drive safely as soon as practicable. (Note: Drivers should report as soon as they become aware of these new/ changed conditions – they should not wait for the periodic review.)	• To assess the person's fitness to drive based on relevant clinical and functional information and on the relevant published medical standards. • To advise the person about: – the impact of their medical condition, disability or treatment on their ability to drive and recommend restrictions, ongoing monitoring, rehabilitation/training or transitional arrangements as required – their responsibility to report their condition to the driver licensing authority if their long-term or permanent injury or illness may affect their ability to drive safely. • To treat, monitor and manage the person's condition with ongoing consideration of their fitness to drive. • To report to the driver licensing authority regarding a person's fitness to drive, including their suitability to hold a conditional licence, in accordance with legislated requirements and public safety and ethical considerations. **Note:** Medical practitioners or other clinicians do not have the legal authority to restrict, reinstate or apply conditions to a patient's driver licence; this can only be done by the relevant driver licensing authority.	• To make all decisions regarding the licensing of drivers. The driver licensing authority will consider reports provided by health professionals, police and members of the public, as well as crash involvement and driving histories. • To make all decisions regarding the issue of conditional licences. The driver licensing authority will consider the recommendations of health professionals as well as other relevant factors. • To educate the driving public of their responsibility to report any long-term or permanent injury, illness, medical condition, disability or treatment to the driver licensing authority if the condition may affect their ability to drive safely. • To provide relevant information resources and support for health professionals about driver fitness assessment and licensing.

Brochures describing the responsibilities of patients, health professionals and licensing authorities may be available from state and territory driver licensing authorities. Refer to Appendix 9 *for contact details. Information is also available from the Austroads website at* www.austroads.com.au.

3.1. Roles and responsibilities of driver licensing authorities

The responsibility for issuing, renewing, suspending, refusing or cancelling a person's driver licence (including a conditional licence) lies ultimately with driver licensing authorities.

Licensing decisions are individualised and are based on a full consideration of relevant factors relating to the driver's:

- health
- functional capacity (including their ability to compensate for any impairment)
- insight into their condition
- compliance with any prescribed treatment
- compliance with existing licence conditions
- driving history
- any other relevant information.

In making a licensing decision, the authority will seek input directly from the driver and/or from a health professional. The authority will also act on unsolicited reports from health professionals, the police or members of the public about a person's fitness to drive.

Under national driving licensing arrangements current at the time of publication, the driver licensing authority issuing the driver licence and the driver's residential address should be in the same jurisdiction.

Payment for health examinations or assessments related to fitness to drive is generally not the responsibility of driver licensing authorities.

Each state and territory has an appeal system for situations where drivers do not agree with a decision made about their driver licence. The driver licensing authority will inform drivers of the appeal process when informing them of the licensing decision.

Driver licensing authorities can provide health professionals with information about:

- licensing and administrative processes
- medical aspects (while not all driver licensing authorities have medical officers on staff, they are able to assist health professionals who require guidance with particular cases)
- practical driver assessments
- legal and ethical issues (the driver licensing authority can provide guidance about the legislative requirements for licensing and assessing fitness to drive. For general advice on legal or ethical issues, health professionals should contact their professional defence organisation).

Appendix 9 contains the contact details for driver licensing authorities around Australia.

3.2. Roles and responsibilities of drivers

In all states and territories, legislation requires a driver to advise their driver licensing authority of any long-term or permanent injury or illness, disability or medical treatment that may affect their safe driving ability.

At licence application and renewal, drivers can be asked to complete a declaration regarding their health, including whether they have any long-term conditions such as diabetes, epilepsy or cardiovascular disease. Based on this information the driver licensing authority may request a medical examination to confirm a driver's fitness to hold a driver licence. In the case of medical examinations requested by the driver licensing authority, drivers have a duty to declare their health status to the examining health professional and respond truthfully to any questions for this purpose.

Drivers must also report to the driver licensing authority when they become aware of a health condition that may affect their ability to drive safely. There is some variability in these

laws between the states and territories, so drivers and health professionals should be aware of the specific reporting requirements in their jurisdiction and should contact their driver licensing authority for details of local requirements. These laws may impose penalties for failure to report (refer to Appendix 3. Legislation relating to reporting).

Drivers may be liable at common law if they continue to drive knowing that they have a condition that is likely to adversely affect safe driving. Drivers should be aware that there may be long-term financial, insurance and legal consequences where there is failure to report any long-term illness, disability, medical condition or injury, or the effects of the treatment for any of those things, to their driver licensing authority.

3.3. Roles and responsibilities of health professionals

Patients rely on health professionals to advise them if a permanent or long-term illness, disability, medical condition or injury, or the effects of the treatment for any of those things may affect their safe driving ability and whether it should be reported to the driver licensing authority. The health professional has an ethical obligation, and potentially a legal one, to give clear advice to the patient in cases where a long-term illness, disability, medical condition or injury, or the effects of the treatment for any of those things, may affect safe driving ability. Health professionals are advised to note in the patient's medical record the nature of the advice given.

3.3.1. Confidentiality, privacy and reporting to the driver licensing authority

Health professionals have both an ethical and legal duty to maintain patient confidentiality. The ethical duty is generally expressed through codes issued by professional bodies. The legal duty is expressed through legislative and administrative means and includes measures to protect personal information about a specific individual. The duty to protect confidentiality also applies to driver licensing authorities.

The patient–professional relationship is built on a foundation of trust. Patients disclose highly personal and sensitive information to health professionals because they trust that the information will remain confidential. If such trust is broken, patients could forgo examination/treatment or modify the information they give to their health professional, potentially placing their health at risk.

Although confidentiality is an essential component of the patient–professional relationship, there are, on rare occasions, ethically or legally justifiable reasons for breaching confidentiality. With respect to assessing and reporting fitness to drive, the duty to maintain confidentiality is legally qualified in certain circumstances in order to protect public safety. Health professionals should consider reporting directly to the driver licensing authority in situations where a patient is either:

- unable to appreciate the impact of their condition
- unable to take notice of the health professional's recommendations due to cognitive impairment
- provides unreliable information on their condition, or
- continues driving despite appropriate advice and is likely to endanger the public.

In the Australian Capital Territory, New South Wales, Queensland, Tasmania, Victoria and Western Australia, statute provides that health professionals who make such reports to driver licensing authorities without the patient's consent but in good faith that a patient is unfit to drive are protected from civil and criminal liability. The Northern Territory does not currently provide this protection (refer to Appendix 3. Legislation relating to reporting).

In South Australia and the Northern Territory current legislation imposes mandatory reporting. A positive duty is imposed on health professionals to notify the relevant authority in writing of a belief that a driver is physically or mentally unfit to drive (refer to Appendix 3. Legislation relating to reporting).

It is preferable that any action taken in the interests of public safety should be taken with the consent of the patient wherever possible and should certainly be undertaken with the patient's knowledge of the intended action.

The patient should be fully informed as to why the information needs to be disclosed to the driver licensing authority and be given the opportunity to consider this information. Failure to inform the patient will only exacerbate the patient's (and others') mistrust in the patient–professional relationship. It is recognised that there might be an occasion where the health professional feels that informing the patient of the disclosure may place the health professional or others at risk of violence. Under such circumstances the health professional must consider how to appropriately manage such a situation (refer to section 3.3.3. Patient hostility towards the health professional).

In making a decision to report directly to the driver licensing authority, it may be useful for the health professional to consider:

- the seriousness of the situation (i.e. the immediate risks to public safely or others both from the patient's attitude and the degree of risk their condition poses)
- the risks associated with disclosure without the individual's consent or knowledge, balanced against the implications of non-disclosure
- the health professional's ethical and professional obligations
- whether the circumstances indicate a serious and imminent threat to the health, life or safety of any person.

Considerations involving cases where there is an immediate threat to public safety may require the health professional to exercise their duty of care in line with relevant professional standards and report the driver to the driver licensing authority or the police. This may be appropriate in instances where there is a high risk – for example, drivers with a history of reckless driving, crashes or intentions to cause harm involving motor vehicles.

Examinations requested by a driver licensing authority

When a patient presents for a medical examination at the request of a driver licensing authority the situation is different with respect to confidentiality. The patient may present with a form or letter from the driver licensing authority requesting an examination for the purposes of licence application or renewal, or as a stipulation of a conditional licence. The completed form should be sent directly to the driver licensing authority, rather than returned to the driver. In the case where an electronic medical report form is completed, these reports will be returned directly to the driver licensing authority.

Privacy legislation

All health professionals and driver licensing authorities should be aware of the National Privacy Principles, the Health Privacy Principles and other privacy legislation applicable in their jurisdiction (e.g. health records legislation) when collecting and managing patient information and when forwarding such information to third parties.

3.3.2. Patient–health professional relationship

It is expected that health professionals will be able to act objectively in assessing a patient's fitness to drive. If this cannot be achieved – for example, where there may be the possibility of the patient ceasing contact or avoiding all medical management of their condition – health professionals should be prepared to disqualify themselves and refer their patient to another practitioner.

A difficult ethical situation arises in the event that the health professional has reason to doubt the veracity of the information provided by a patient regarding their health, and their capacity to drive safely. In this case health professionals could consider the following strategies:

- contacting their professional indemnity insurer, discussing the problem and documenting the advice
- discussing the problem with colleagues
- referring the person for a second or specialist opinion
- contacting the relevant driver licensing authority and, without identifying the patient, discussing the problem and documenting the advice.

With these additional inputs it may be possible to carefully discuss and reassess the situation with the patient, taking care to document the proceedings.

3.3.3. Patient hostility towards the health professional

Sometimes patients feel affronted by the possibility of restrictions to their driving or withdrawal of their licence and may be hostile towards their treating health professional. In such circumstances the health professional may elect to refer the driver to another practitioner or may refer them directly to the driver licensing authority without a recommendation regarding fitness to drive. Driver licensing authorities recognise that it is their role to enforce the laws on driver licensing and road safety and will not place pressure on health professionals that might needlessly expose them to risk of harassment or intimidation.

The health professional may refer the patient to the standards in this publication when dealing with such situations. They may point out that the standards are developed by the National Transport Commission in cooperation with professional medical, allied health associations and road safety experts based on current evidence and are enforced by driver licensing authorities.

More information about managing patient–professional hostility is available from the Royal Australian College of General Practitioners website at www.racgp.org.au/your-practice/business/tools/safetyprivacy/gpsafeplace/.

3.3.4. Dealing with individuals who are not regular patients

Care should be taken when health professionals are dealing with drivers who are not regular patients. Some drivers may seek to deceive health professionals about their medical history and health status and may 'doctor shop' for a desirable opinion. If a health professional has doubts about a person's reason for seeking a consultation, they should consider:

- asking permission from the person to request their medical file from their regular health professional
- conducting a more thorough examination of the person than would usually be undertaken
- noting on the medical report returned to the driver licensing authority the length of time the patient has been known to them and whether the health professional had access to the full medical record/history.

3.3.5. Role of medical specialists

In most circumstances medical assessments of drivers of either commercial or private vehicles can be conducted by a general practitioner. However, if doubt exists about a patient's fitness to drive or if the patient's particular condition or circumstances are not covered specifically by the standards, review by a specialist experienced in managing the particular condition is warranted and the general practitioner should refer the patient to such a specialist.

It is important that treating specialists share their fitness-to-drive assessment outcomes with the patient's general practitioner. This is in recognition of the important role general practitioners have in healthcare coordination and monitoring of long-term health conditions as well as potential road safety and public health implications.

In the case of commercial vehicle drivers, the opinion of a medical specialist is generally required for an initial recommendation and periodic review of a conditional licence; the main exceptions to this are set out here and in section 4.4.7. What if there is a delay before a specialist can be seen?.

This requirement reflects the higher safety risk for commercial vehicle drivers and the consequent importance of expert opinion. In circumstances where access to specialists is limited, once the initial recommendation is made, alternative arrangements for subsequent reviews by the general practitioner may be made with the approval of the driver licensing authority and with the agreement of the specialist and the treating general practitioner.

Box 2. Telehealth

General practitioners and patients are encouraged to use telemedicine technologies such as videoconferencing to minimise any difficulties associated with seeing their regular GP or where there is limited access to specialists.

From 30 March 2020, telehealth (video-call) and phone consultation items became available to all Medicare-eligible Australians for a wide range of consultations, subject to certain limitations. Particularly for people in remote area communities, this provides many patients with easier access to specialists, without the time and expense involved in travelling to major cities.

These measures were introduced in response to the COVID-19 pandemic. A longer term telehealth model (post 31 December 2021) is currently under development. More information about telehealth services is available from the Medicare website at humanservices.gov.au/health-professionals/services/medicare/mbs-and-telehealth.

Note: The opinion of a specialist is relevant only to their specialty. General practitioners are in a good position to integrate reports from various specialists in the case of multiple disabilities to help the driver licensing authority make a licensing decision. An occupational physician or an authorised health professional may provide a similar role for drivers of commercial vehicles and their employers. For the purposes of this publication, the term 'specialist' refers to a medical or surgical specialist other than a general practitioner, acknowledging that Fellows of the Royal Australian College of General Practitioners and Fellows of the Australian College of Rural and Remote Medicine have specialist status under current medical registration arrangements (refer to www.medicalboard.gov.au).

3.3.6. Role of driver assessors and trainers

As previously described, a practical driver assessment (including on- or off-road components) may be required to assess the impact of injury, illness, disability or the ageing process on driving skills including judgement, decision-making skills, observation and vehicle handling. Such assessments are particularly useful in borderline cases where vehicle modifications or adaptations are required and/or where the impact of injury, illness, disability or the ageing process on functionality is not clear. They should be conducted by suitably qualified occupational therapy driving assessors. Advice regarding the availability and access to driver assessors is available from the local driver licensing authority and Occupational Therapy Australia (refer also to Appendix 10. Specialist driver assessors).

Recommendations following assessment may relate to licence status, the need for vehicle modifications, rehabilitation or retraining (refer to section 2.3.2. Driver rehabilitation), licence conditions or restrictions (refer to section 4.4. Conditional licences) and reassessment.

Driver training and rehabilitation providers have a role in supporting drivers to retain and regain skills as a result of injury, disability or illness, and to adapt to using vehicle modifications. Training may be conducted on-road and may be supplemented by simulator- or computer-based training.

3.3.7. Role of independent experts/ panels

Recognising that not all medical and driving circumstances can be specifically or fully covered in these standards, driver licensing authorities may draw on independent expert medical advice to inform borderline or otherwise difficult licensing decisions.

3.3.8. Documentation

Clear documentation of the assessment results and communication with the patient and driver licensing authority is important. Refer to section 5.2. Which forms to use.

4. Licensing and medical fitness to drive

4.1. Medical standards for private and commercial vehicle drivers

This publication outlines two sets of medical standards for driver licensing or authorisation: private vehicle driver standards and commercial vehicle driver standards. The assignment of medical standards for vehicle drivers is based on an evaluation of the driver, passenger and public safety risk, where:

Risk = Likelihood of the event × Severity of consequences.

Commercial vehicle crashes may present a severe threat to passengers, other road users (including pedestrians and cyclists) and residents adjacent to the road. Such crashes present potential threats in terms of spillage of chemicals, fire and other significant property damage. On the other hand, crashes involving private vehicle drivers are likely to have less severe consequences.

Commercial vehicle drivers generally spend considerable time on the road, increasing the likelihood of a crash. They may also be monitoring various in-vehicle communication and work-related systems – a further factor that increases the likelihood of a crash. Crash data identifies that commercial vehicle drivers are more than twice as likely to be involved in a fatal crash compared with other drivers.

To ensure that the risk to the public is similar for private and commercial vehicle drivers, the medical fitness requirements for the commercial vehicle driver standards must be more stringent. This is required to reduce the risk of a crash, as much as possible, due to long-term injuries or illnesses. The standards in this publication reflect these differences.

Identifying which standards apply

The choice of which standards to apply when examining a patient for fitness to drive is guided by both the type of vehicle (e.g. heavy vehicle) and the purpose for which the driver is authorised to drive (e.g. carrying passengers or dangerous goods). Generally, the commercial vehicle driver medical standards apply to drivers of heavy vehicles, public passenger vehicles or vehicles carrying dangerous goods. A dangerous goods driver licence is required to transport dangerous goods in an individual receptacle with a capacity greater than 500 litres or net mass greater than 500 kilograms.

The **private standards** should be applied to:

- drivers applying for or holding a licence class C (car), R (motorcycle) or LR (light rigid) unless the driver is also applying for an authority to or is already authorised to use the vehicle for carrying public passengers for hire or reward or for carrying dangerous goods or, in some jurisdictions, for a driving instructor
- voluntary drivers who use their private vehicle but for a voluntary service (e.g. wheels on meals, staff at schools who drive students around, voluntary taxi services for older people, L2P drivers), unless the voluntary driving aligns with the commercial standards.

The **commercial standards** should be applied to:

- drivers of 'heavy vehicles' – those holding or applying for a licence of class MR (medium rigid), HR (heavy rigid), HC (heavy combination) or MC (multiple combination)
- drivers carrying public passengers for hire or reward (bus drivers, drivers of taxis or other ridesharing services, chauffeurs, drivers of hire cars and small buses)
- drivers carrying dangerous goods
- drivers subject to requirements for Basic or Advanced Fatigue Management under the National Heavy Vehicle Accreditation Standard
- other driver categories that may also be subject to the commercial vehicle standards as a result of certification requirements of the authorising body or as required by specific industry standards – for example, driving instructors and members of TruckSafe.

4.2. Considerations for commercial vehicle licensing

The commercial vehicle driver standards acknowledge and allow for the variability in risk among different commercial vehicle drivers. The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence (refer to section 4.4. Conditional licences). For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle on their own property may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a patient and when providing advice to the driver licensing authority.

In developing the standards, several approaches have been adopted to manage the increased risk associated with driving a commercial vehicle (refer to Table 3). These approaches include the following:

- There are generally longer non-driving periods prescribed for commercial vehicle drivers compared with private vehicles – for example, after a seizure or heart attack.
- There is generally a requirement that a specialist (rather than general practitioner) provides information regarding a conditional licence for a commercial vehicle driver (refer to section 4.4. Conditional licences).
- Some medical conditions may preclude a person from driving a commercial vehicle but they may still be eligible to hold a full or conditional licence for a private vehicle – for example, early dementia.
- The review period for a conditional licence may be shorter for a commercial vehicle driver.

Table 3. Choice of standard according to vehicle/licence type

National licence class		Applicable standard
Motorcycle (R) 	Motorbike or motortrike	Private standards apply **unless** the driver holds or is applying for an authority to carry public passengers for hire or reward, in which case the commercial standards apply.
Car (C) 	Vehicle not more than 4.5 tonnes GVM (gross vehicular mass) and seating up to 12 adults including the driver	Private standards apply **unless** the driver: • holds or is applying for an authority to carry public passengers for hire or reward (e.g. taxi driver) • is undertaking a medical assessment as a requirement under an accreditation scheme • holds or is applying for an authority to hold a dangerous goods driver licence • holds or is applying to hold authority to be a driving instructor (may vary between jurisdictions). In these cases the commercial standards apply.
Light rigid (LR) 	Any rigid vehicle greater than 4.5 tonnes GVM or a vehicle seating more than 12 adults that is not more than 8 tonnes, plus a trailer of no more than 9 tonnes GVM	
Medium rigid (MR) 	Any two-axle rigid vehicle greater than 8 tonnes GVM, plus a trailer of no more than 9 tonnes GVM	Commercial standards apply at **all** times.
Heavy rigid (HR) 	Any rigid vehicle with 3 or more axles greater than 8 tonnes GVM, plus a trailer of no more than 9 tonnes GVM	
Heavy combination (HC) 	Prime mover + single semitrailer greater than 9 tonnes GVM and any unladen converter dolly trailer	
Multiple combination (MC) 	Heavy combination vehicle with more than one trailer	

Notes on national licence classes and standards:

- A person who does not meet the commercial vehicle medical requirements may still be eligible to retain a private vehicle driver licence. In such cases, both sets of standards may need to be consulted.
- The driver licence authority periodic and medical examination requirements for each licence class are outlined in Appendix 1. Regulatory requirements for driver testing.
- The standards are intended for application to drivers who drive within the ambit of ordinary road laws. Some drivers, such as emergency service and first responder vehicle drivers (e.g. ambulance, fire, police), are given special exemptions from these laws. Due to the nature of the work performed by these drivers (e.g. carrying passengers who may be unrestrained on stretchers or in locked vans, working shifts, under pressure) they should have a risk assessment and an appropriate level of medical standard applied by the employer. As a minimum they should always be considered under the commercial driver standard.

4.3. Prescribed periodic medical examinations for particular licensing/ authorisation classes

Some classes of driver are required to present periodically for prescribed examinations based on the standards as part of their licensing or authorisation requirements.

Such requirements may vary between states and territories and might apply, for example, to:

- drivers of vehicles that are physically difficult to drive or require the capacity to monitor many vehicle functions – for example, multiple combinations
- drivers of vehicles for which the consequences of a crash are usually serious – for example, drivers holding a dangerous goods driver licence or drivers of public passenger vehicles.

There are also requirements in some states and territories for older drivers to undergo periodic medical assessment.

These requirements are determined and directed by individual state and territory driver licensing authorities and are outlined in Appendix 1. Regulatory requirements for driver testing. Industry groups such as the Australian Trucking Association and national programs such as the Fatigue Management Program under the National Heavy Vehicle Accreditation Standard may also require drivers to have periodic examinations; however, the requirements of these programs are not discussed specifically in this standard.

4.4. Conditional licences

4.4.1. What is a conditional licence?

A conditional licence provides a mechanism for optimising driver and public safety while maintaining driver independence when a driver has a long-term or progressive health condition or injury that may affect their ability to drive safely. A conditional licence permits the driver to drive in conditions that suit their capability – for example, no night driving, only driving in familiar areas (local area restriction) or having to wear corrective lenses. A conditional licence identifies the need for medical treatments, vehicle modifications or driving restrictions that would enable the person to drive safely. It may also specify a review period, after which the person must undertake a medical review to establish the status of their condition and their continued fitness to drive. A conditional licence therefore offers an alternative to withdrawing a licence and enables individual case-based decision making.

4.4.2. Who allocates a conditional licence?

The final decision regarding conditional licences rests with the driver licensing authority (refer to section 3.1. Roles and responsibilities of driver licensing authorities). The decision is based on information provided by the driver's health professional and on-road safety considerations. The driver licensing authority will issue a conditional licence to a driver with a long-term injury or illness on the basis that any additional road safety risk posed by the person driving is acceptable.

4.4.3. What is the role of the health professional?

While the driver licensing authority makes the final decision about whether a driver is eligible for a conditional licence, the health professional provides information to assist the authority in its decision making. The health professional should advise the driver licensing authority of:

- which medical requirements (for an unconditional licence) have not been met (referring to medical criteria/thresholds outlined in this document)
- the likely adequacy of treatments, driver aides or vehicle modifications in optimising driver capacity
- the plan to monitor the driver's performance and the medical condition, including timeframes for review
- if appropriate, information relating to possible licence conditions – for example, vehicle type or licence restrictions such as no night driving, radius restriction or downgrading to a lower class of licence
- any other medical information that may be relevant to the driving task.

This information is needed so the driver licensing authority can make an informed decision and determine what conditions will be endorsed on the licence.

4.4.4. What sort of conditions/ restrictions may be recommended?

Examples of licence conditions, restrictions or vehicle modifications are shown in Table 4. Examples of licence conditions that may be required by the driver licensing authority. These are indicative only and will vary depending on the medical condition and the type of licence. They include standard conditions that will appear as codes on the driver licence (e.g. corrective lenses, automatic transmission, hand controls). They also include conditions that are 'advisory' in nature and as such may not appear on the actual licence (e.g. take medication as prescribed, don't drive more than a specified number of hours in any 24-hour period).

One option available to maintain a driver's independence despite a reduction in capacity is to recommend that an area restriction be placed on the licence. This effectively limits where the person can drive and is most commonly expressed as a kilometre radius restriction based on their home address. Drivers should be capable of managing usual driving demands (e.g. negotiating intersections, giving way to pedestrians) as required in their local area. These licence conditions are only suitable for drivers who can reasonably be expected to understand and remember the limits as well as reliably compensate for any functional declines. The ability to respond appropriately and in a timely manner to unexpected occurrences such as roadworks or detours that require problem solving should also be considered. Individuals lacking insight or with significant visual, memory or cognitive-perceptual impairments are usually not suitable candidates for a radius restriction (e.g. refer to Part B section 6.1. Dementia).

The health professional can support a patient in making an application for a conditional licence by indicating the patient's driving needs, but the final decision rests with the driver licensing authority.

Table 4. Examples of licence conditions that may be required by the driver licensing authority*

Examples of disability/situation	Examples of licence conditions
Left leg disability	Automatic transmission
Left arm disability	Automatic transmission, steering aide
Short stature	Built-up seat and pedals
Loss of bilateral leg function	Hand-operated acceleration/brake controls
Reduced lower limb strength	Power brakes required
Reduced upper limb strength	Power steering required; steering aide
Short leg(s)	Extended pedals
Hearing deficiency (commercial drivers)	Hearing aid must be worn (commercial vehicles – assuming hearing standard is met)
Deafness, both ears (commercial vehicle driver – assuming meets specified hearing standard)	Vehicle fitted with two external rear-view mirrors and other devices as required to assist external visual surveillance and recognition of emergency vehicles (e.g. additional wide-angle internal mirror, rear-view camera)
Visual acuity deficiency	Prescribed corrective lenses must be worn
Loss of limb function	Prosthesis must be worn
Degenerative medical conditions	Periodic review by driver assessor
Night blindness	Driving in daylight hours only
Age or medical condition-associated impairments, for example, attention	Driving during off-peak only; drive within a specified kilometre radius of place of residence; in daylight hours only; no freeway driving (local area restriction – see below for further description)
Spinal cord injury (above T12)	Not to drive when the temperature is above 25°C unless the vehicle is air-conditioned
Substance misuse (alcohol)	Ignition interlock device

** These are not mandatory requirements and may be unsuitable in some circumstances.*

4.4.5. What monitoring is required for a conditional licence?

Conditional licences should be subject to periodic review so the medical condition, disability or treatment, including the compliance with treatments, can be monitored. The frequency of formal review regarding licence status is sometimes specified in this publication but often is left to the judgement of the health professional, given the variations in severity and stability of a medical condition, disability or treatment and the possible effects on driving.

In the course of providing advice about a conditional licence, health professionals should advise the driver licensing authority of the period for which a conditional licence could be issued before formal review. This may be months or years depending on the condition in question and its progression; these reviews differ from the ordinary follow-up consultations that a health professional may be offering in the course of general management.

At the time of a periodic review or during general management of a patient's condition, it may become apparent that the patient no longer meets the requirements of the conditional licence because their health has deteriorated for some reason. The patient should be advised to inform the driver licensing authority of their changed circumstances with respect to fitness to drive (refer to section 3.2. Roles and responsibilities of drivers).

4.4.6. What about conditional licences for commercial vehicle drivers?

In addition to the examples in Table 4, the driver licensing authority may consider issuing a conditional commercial vehicle licence – for example, in certain circumstances or situations where crash risk exposure can be managed. A case-by-case risk assessment is required that considers relevant factors including driver insight, stability of the health condition, treatment compliance, nature of goods being transported, size/complexity of the vehicle and periodic review requirements. Examples of such circumstances or situations may include:

- off-road driving of commercial vehicles where licences are still required
- where driving is not the primary occupation – for example, mechanics who need to test drive the vehicle, primary producers who need to get product to market and only need to drive a couple of times a year and drivers who need to move buses not carrying public passengers within a bus depot or from a nearby workshop.

In the case of commercial vehicle drivers, the opinion of a medical specialist is generally required for consideration of a conditional licence – the main exceptions to this are set out in the next paragraph and in section 4.4.7. What if there is a delay before a specialist can be seen?. This requirement reflects the higher safety risk for commercial vehicle drivers and the consequent importance of expert opinion.

In areas where access to specialists may be difficult, the driver licensing authority may agree to a process in which:

- initial assessment and advice for the conditional licence is provided by a specialist
- ongoing periodic review for the conditional licence is provided by the treating general practitioner, with the cooperation of the specialist.

Where appropriate, telemedicine is encouraged to facilitate access to specialist opinion.

4.4.7. What if there is a delay before a specialist can be seen?

In the case of a commercial vehicle driver or applicant for a commercial vehicle licence who is assessed by a general practitioner as not meeting the criteria to hold an unconditional licence for one or more conditions but who may meet the criteria to hold a conditional licence, the driver licensing authority may permit the person to drive, or to continue to drive, a commercial vehicle pending assessment of the person by an appropriate specialist(s) if:

- the person has an appointment to see the relevant specialist(s) at the earliest practicable opportunity
- in the opinion of the general practitioner the condition is not, or the conditions are not, likely to lead to acute incapacity or loss of cognitive ability or insight before the assessment or assessments occur.

Examples of such conditions include early peripheral neuropathy, early rheumatoid arthritis or diabetes treated by diet and exercise alone. Examples of conditions that could lead to acute incapacity or loss of concentration include ischaemic heart disease, sleep apnoea and blackouts (other than vasovagal).

In applying this section the driver licensing authority may impose conditions on the licence.

4.5. Reinstatement of licences or removal or variation of licence conditions

Situations may arise in which a medical condition improves to such an extent that the patient's licence restriction may be reconsidered by the driver licensing authority, resulting in reinstatement of the licence or removal or variation of licence conditions, including requirements for periodic medical review.

Under such circumstances a letter or notification to this effect from the treating health professional to the licensing authority (refer to Appendix 2.2. Medical condition notification form) should include:

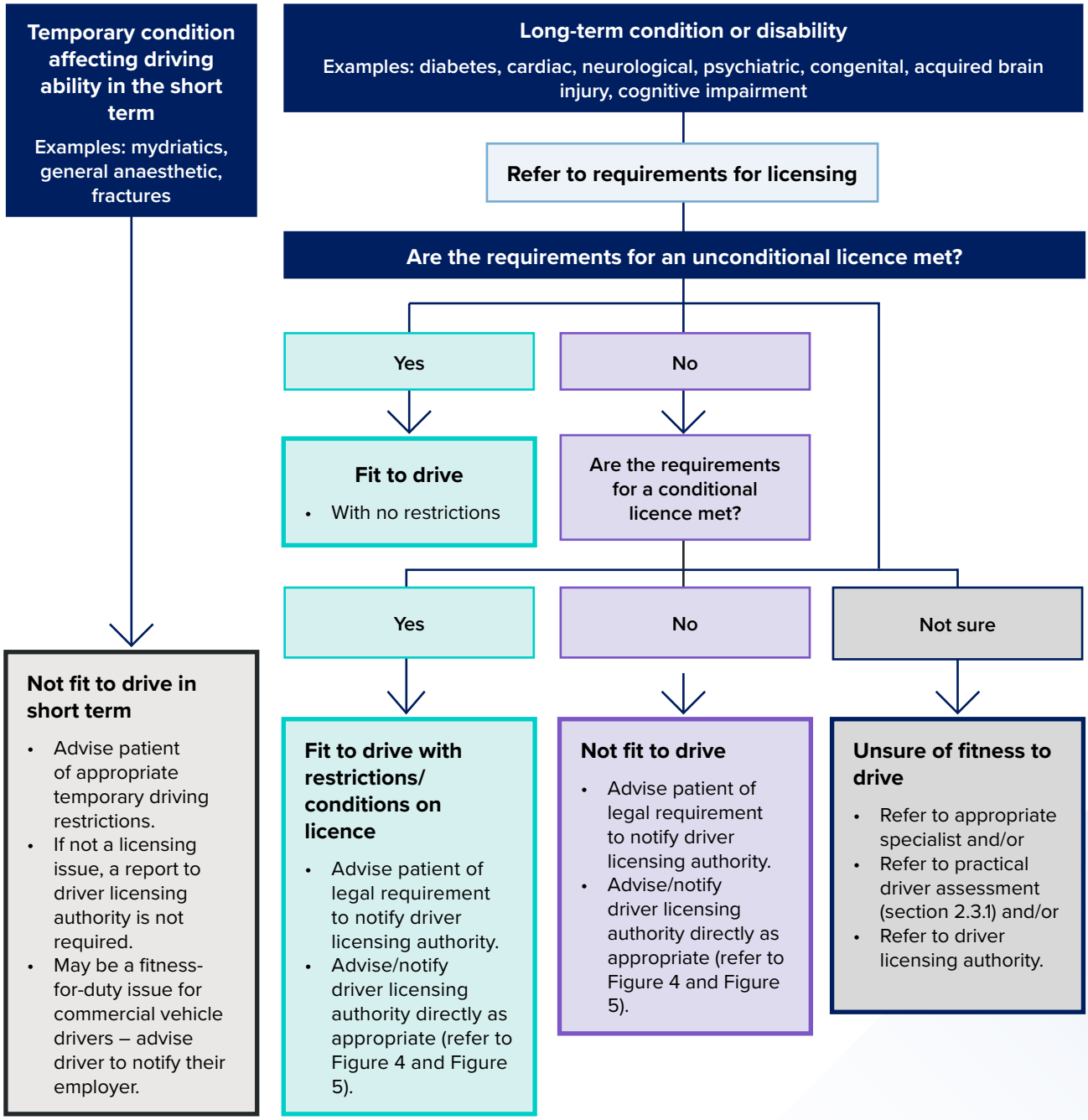
- details of the requirements now met which were not previously met (refer to medical criteria in this document)
- the response to treatment, interventions and/or rehabilitation and the long-term prognosis
- the duration of improvement
- other relevant information including consideration of the driving task (e.g. the requirements of a person who drives occasionally to the shops are likely to be different from those of a person undertaking extensive interstate travel or who drives regularly as part of their employment/voluntary work).

The driver licensing authority will consider the request and advise the driver of their determination; licence decisions may be contingent on the requirement for the driver or applicant to undertake and pass an on-road evaluation to confirm their driving abilities.

5. Assessment and reporting process – step by step

Assessing fitness to drive is based on the decision-making processes outlined in Figure 3. Medical decision-making process for assessing fitness to drive. The nature and extent of the examination will depend on the circumstances and the reasons for the examination. Details of the process and administrative requirements are described in this section and are further illustrated in Figure 4 and Figure 5. Note also the further considerations outlined in section 3. Roles and responsibilities.

Figure 3. Medical decision-making process for assessing fitness to drive



5.1. Steps in the assessment and reporting process

Step 1: Consider the type of licence held or applied for

The type of licence will determine whether the commercial or private medical standards are referred to. In the case of examinations requested by a driver licensing authority, the authority will identify the type of licence on the request. In cases of assessment as part of an ongoing therapeutic relationship, the health professional will need to determine from the patient what sort of driver licence or authority they hold. Given the potential for patients to withhold information if their mobility or livelihood is threatened, it is helpful for health professionals to be aware of their patients' occupations as a matter of course.

The health professional should refer to Table 3 to determine which standards to apply.

The medical standards for commercial vehicle drivers are more stringent than those for drivers of private vehicles. A person who is not eligible for a commercial vehicle licence may still be eligible for a private vehicle driver licence. In such cases, both sets of standards may need to be consulted.

Step 2: Establish relevant medical and driving history

The nature and extent of this aspect of the assessment will vary depending on the particular circumstances. In the case of examinations requested by a driver licensing authority for the first time, a detailed history will need to be established including:

- whether the person has ever been found unfit to drive a motor vehicle in the past, and the reasons
- whether there is any history of epilepsy, syncope or other conditions of impaired consciousness including: sleep disorders; neurological conditions; psychiatric conditions; problems arising from alcohol and/or drugs; diabetes; cardiovascular conditions, especially ischaemic heart disease; locomotor disorders; hearing or visual problems
- whether the person has a history of motor vehicle incidents (e.g. crashes, near misses, driving offences, drink/drug driving)
- whether the person is taking medications that might affect their driving ability
- the existence of other medical conditions that, when combined, might exacerbate any road safety risks (refer to section 2.2.8. Multiple medical conditions)
- the degree of insight the patient has into their ability to drive safely
- the nature of their current driving patterns and needs – for example, how frequently they drive, for what purposes, over what distances and whether they travel at night.

Special examinations called 'for cause' examinations may be requested by the driver licensing authority out of concern for driving behaviour such as recurrent motor vehicle crashes. Under such circumstances, it is desirable that all aspects of the driver–vehicle–road system (refer to Figure 1) be considered – for example, fatigue factors in the case of a commercial vehicle driver. A full medical

history and history of any motor vehicle crashes should be taken and a complete physical examination conducted.

While attention should be given to conditions discussed in Part B of this publication, unusual conditions or the effect of multiple small disabilities affecting the driving task also warrant consideration, investigation and, where justified, specialist referral.

In cases of review assessments requested by the driver licensing authority as a requirement to maintain a conditional licence, the medical history is likely to be well established and the health professional may focus on the recent status of the particular medical condition(s) and the impacts on driving and general functionality.

In cases of assessment as part of an ongoing therapeutic relationship, the medical history is also likely to be well established; however, an exploration of the person's driving history may be undertaken.

Step 3: Undertake a clinical examination

In the case of examinations requested by a driver licensing authority, a comprehensive clinical examination will generally be required; this will involve assessing the functionality of various body systems including physical and cognitive functioning. The examination should focus on determining the risk of the patient's involvement in a serious motor crash caused by their inability to control the vehicle or inability to act and react appropriately to the driving environment.

This publication focuses on common conditions known to affect fitness to drive in the long-term (Part B); however, it is not possible to define all clinical situations where an individual's overall function would compromise public safety. For example, where a person has a systemic disorder or several co-occurring medical conditions, there may be additive or cumulative detrimental effects on judgement and overall function (refer to section 2.2.8. Multiple medical conditions).

Additional tests or referral to a specialist may be required if and when clinical examination raises the possibility of potentially significant problems.

In cases of review assessments requested by the driver licensing authority as a requirement to maintain a conditional licence, the clinical examination may focus on the status and management of the particular medical condition(s) while also considering other medical issues that have developed and may impact on driving and general functionality.

Step 4: Consider the clinical examination results in conjunction with the patient's medical history, driving history and driving needs

Upon consideration of the information available, the health professional may draw one of a number of conclusions about the patient's fitness to drive:

1. The person has a temporary condition that may affect their driving ability in the short term but will not affect their licence status.
2. The person complies with all medical requirements appropriate to the type of licence held or requested.
3. The person does not meet the unconditional licensing requirements, but medical treatments and/or vehicle or driving modifications may enable them to drive safely under a conditional licence.
4. The person does not meet the medical requirements for an unconditional or conditional licence.
5. The health professional is in doubt about the patient's fitness to drive.

Where doubt exists about a patient's fitness to drive or when the patient's particular condition or

circumstances are not covered precisely by the standards, review by a specialist experienced in managing the particular condition is warranted. In cases where that specialist may still be uncertain about the relative merits of a particular case, a practical driver assessment is one option that may be appropriate (refer to section 2.3.1. Practical driver assessments). Clearance from the driver licensing authority may be required prior to an assessment taking place. Ultimately, the case may need to be referred to the driver licensing authority for evaluation.

Note: It is the driver licensing authority that is ultimately responsible by law for making the licensing decision. It is sufficient for a professional in such circumstances to prepare a report for the driver licensing authority stating the facts and their opinions clearly.

Where a condition of significance with respect to driving is suspected but not proven (e.g. angina) the health professional should proceed to investigate this. Where there is doubt about the safety of the driver continuing to drive while the condition is being investigated, the patient should be advised accordingly (refer to section 2.2.4. Undifferentiated conditions).

Step 5: Inform and advise the patient

Health professionals should routinely advise patients about how their condition may impair their ability to drive safely. As part of this process, the patient becomes better informed about the nature of their condition, the extent to which they can maintain control over it, the importance of periodic medical review and the need for regular medication where appropriate.

In the case of temporary conditions that may affect driving ability in the short term, the examining health professional should provide appropriate advice about not driving and should, with the patient's consent, seek support as required from family members. Notification to the driver licensing authority is not required in such instances.

In the case of an examination requested by a driver licensing authority, the advisory process is straightforward because the patient is actively seeking an examination as part of a licence application or renewal, or as a requirement of a conditional licence. They will be expected to return the report to the driver licensing authority to complete the licensing process. Should the patient be found not to meet the medical criteria, the health professional will take a conciliatory and supportive role while fully explaining the risks posed by the patient's condition with respect to driving a vehicle. The health professional should be particularly aware of the needs of the patient whose livelihood is likely to be affected because of the assessment findings. There are also special considerations for dealing with individuals who are not regular patients (refer to section 3.3.4. Dealing with individuals who are not regular patients).

The situation may be more challenging when fitness to drive is considered in the **course of a patient's regular treatment** and they are found not to meet the medical criteria. In such situations the health professional may be seen by the patient to be making the licensing decision even though this is not the case. Nonetheless, where the health professional believes that continued driving or continued unconditional driving would likely be dangerous, the patient should be informed of the risk to themselves, and to others, of continuing to drive. Where possible, it is helpful to involve a family member or friend in this process. The driver should be encouraged to report their condition voluntarily to the driver licensing authority and should be reminded of their legal obligation to do so.

The standards in this publication should be consulted when dealing with any such situation since they carry an authority that is not imposed on the driver by the health professional but by the national consensus of the driver licensing authorities.

Information brochures may be available from the driver licensing authority to support the patient advisory process (refer to Appendix 9. Driver licensing authority contacts). A range of driver information resources are also listed in section 2.3.4. Information and assistance for drivers.

Where patients are found not to meet the medical criteria or when conditions or restrictions are recommended, advice should be provided regarding alternative means of transport. Reference may also be made to disabled car parking and taxi services (refer to Appendix 6. Disabled car parking and taxi services).

Step 6: Report to the driver licensing authority as appropriate

In the case of an examination requested by a driver licensing authority, the reporting process involves completing the relevant form provided by the driver licensing authority via the patient. Only information relevant to the patient's ability to drive should be included in the report, and it should be signed by the examining professional. The original of the medical report should be provided to the patient to return to the driver licensing authority and a copy should be kept on file in the patient's medical record. Since the patient generally returns the medical report to the driver licensing authority, there is no need for signed consent in this regard. However, the driver licensing authority may ask the patient to provide signed consent for the driver licensing authority to contact the health professional to seek additional information about their condition for the purposes of assessing their fitness to drive.

In the case of assessments made during patient treatment, when encouraging patients to self-report their condition to the driver licensing authority, the health professional should complete a copy of the *Medical condition notification form* (refer to Appendix 2.2. Medical condition notification form) and provide this to the patient to take to the driver licensing authority. Some states and territories may provide an online version of the medical report for completion by health professionals. It is recommended that the health professional keeps a copy of the *Medical condition notification form* in the patient record. The driver licensing authority will also accept a letter describing the patient's condition and the nature of any driving restrictions recommended.

Providing a medical assessment report in an accepted format will reduce the need for the patient to attend on a second occasion for an assessment requested by the driver licensing authority. It will also reduce the time taken by the driver licensing authority to review the case and arrive at a decision about the patient's driver licence status, in turn reducing patient stress and uncertainty.

If the health professional is aware that a patient is continuing to drive and is likely to endanger the public despite the health professional's advice and despite the driver's own obligation to report, reasonable measures to minimise that danger will include notifying the driver licensing authority. A copy of the model *Medical condition notification form* (refer to Appendix 2.2. Medical condition notification form) should be used for this purpose, with additional information provided as deemed necessary by the health professional. The patient should be informed of the health professional's intent to report (refer to section 3. Roles and responsibilities).

Cases where there is an immediate threat to public safety may require the health professional to exercise their duty of care in line with relevant professional standards and report the driver to the licensing authority or the police. This may be appropriate in instances where there is a high risk – for example drivers with a history of reckless driving, crashes or intentions to cause harm involving motor vehicles.

Step 7: Record keeping and sharing

Appropriate records need to be maintained should the driver licensing authority require more information. Medical specialists and others (e.g. optometrists and occupational therapists) should routinely, as part of best practice patient management, share their fitness-to-drive assessments with the patient's general practitioner. This facilitates information sharing and enhances review/management of long-term health conditions and better care coordination. The forms discussed above (refer to section 5.2. Which forms to use) and included in Appendix 2. Forms are designed to assist with this.

Step 8: Follow-up

A health professional has no obligation to contact the patient or driver licensing authority to determine if the patient has reported their condition to the driver licensing authority as advised by the health professional. However, it is appropriate that the health professional, during future patient contacts, enquires about their driving. This is particularly important for public safety in cases where some cognitive deterioration is detected or suspected. If the patient continues to drive despite advice to the contrary, the health professional should consider notifying the driver licensing authority as indicated above.

If the patient did not notify the driver licensing authority and subsequently became involved in a vehicle crash as a result of their condition/illness, the health professional would not be at risk unless it could be demonstrated that they were aware of the patient's continuing driving and were also aware of the imminent and serious risk (refer to section 3. Roles and responsibilities).

Figure 4. Conducting an examination at the request of a driver licensing authority (DLA)

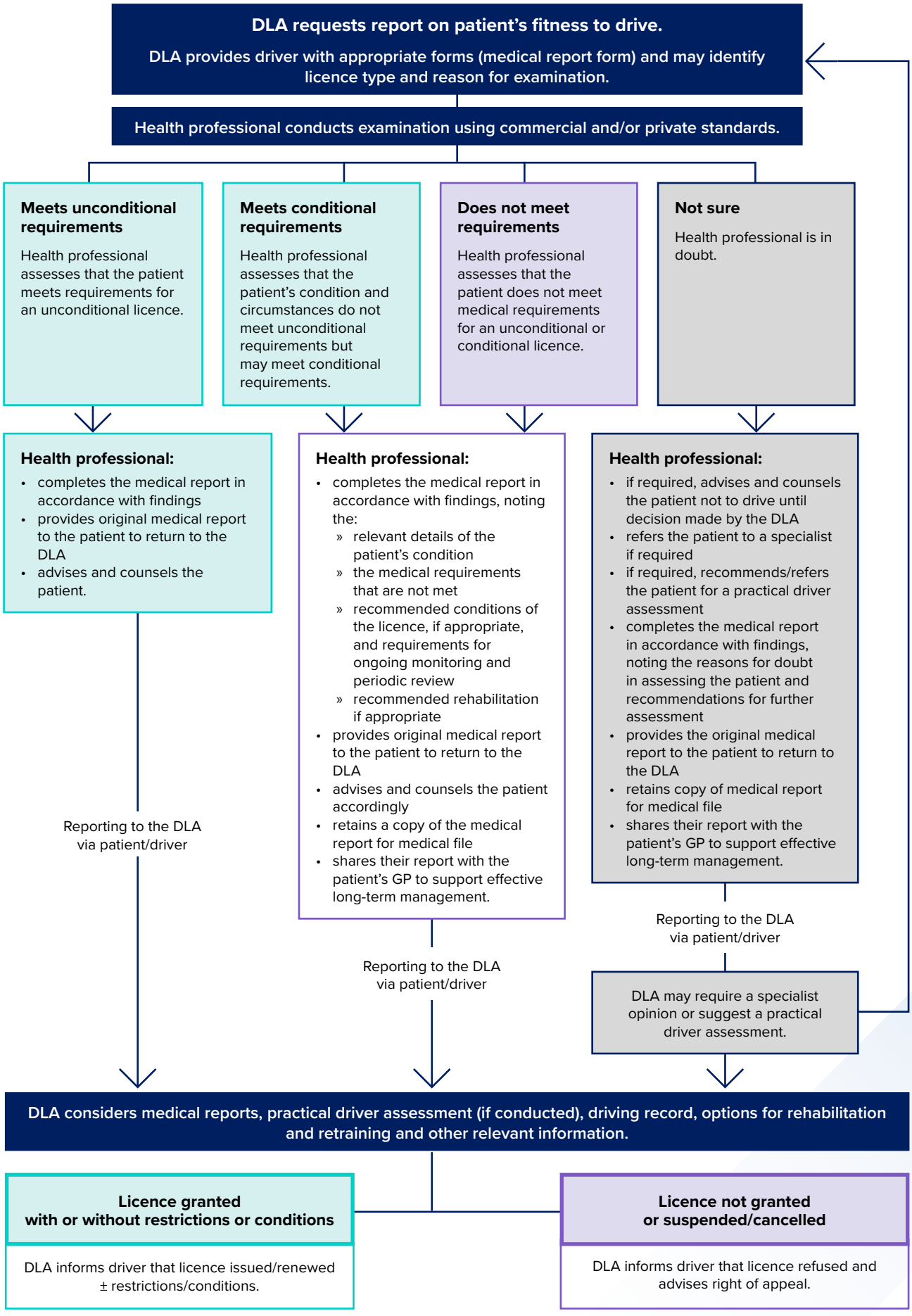
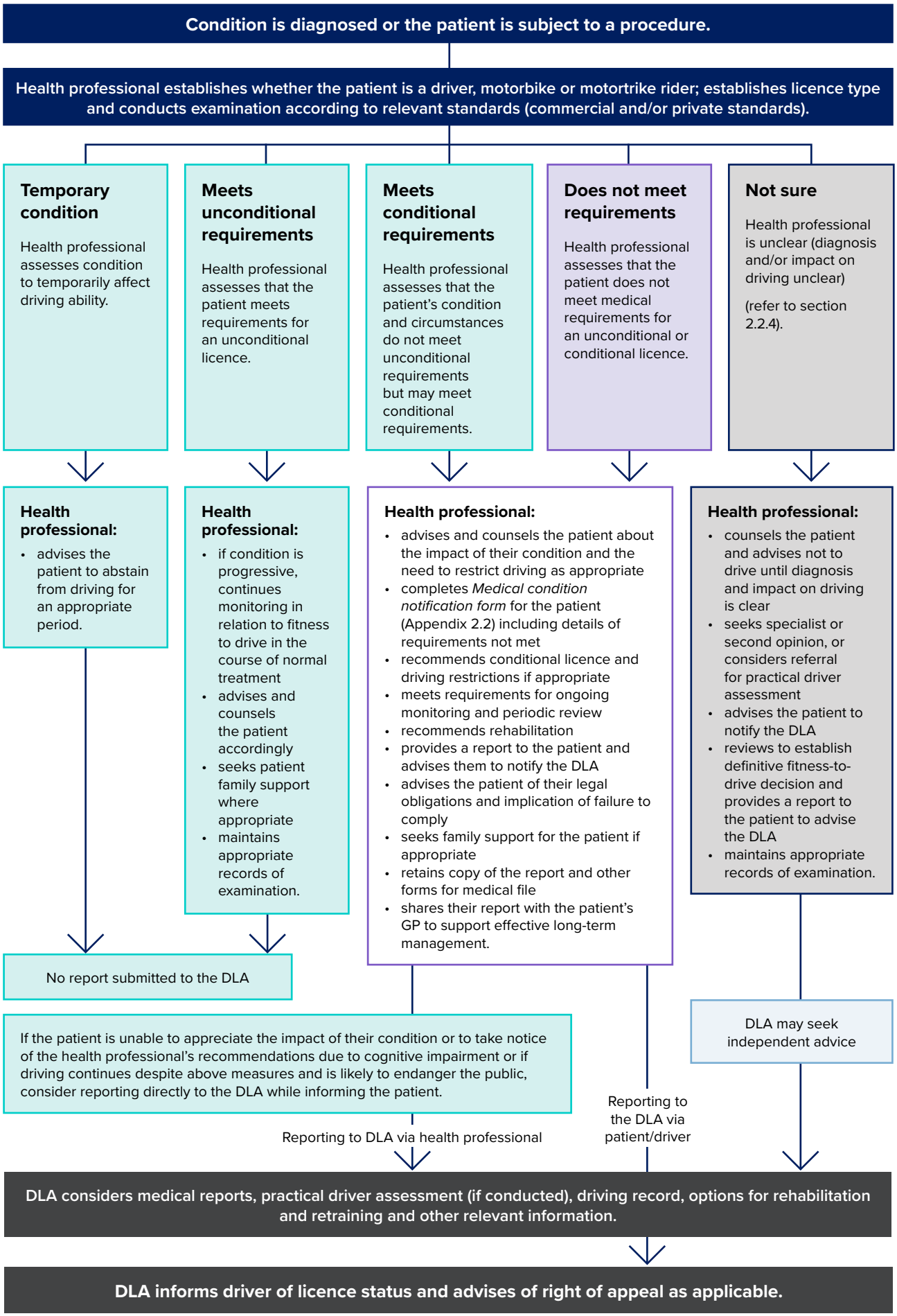


Figure 5. Assessing and reporting on fitness to drive in the course of patient treatment



5.2. Which forms to use

5.2.1. When conducting an assessment at the request of a driver licensing authority

When conducting an assessment at the request of a driver licensing authority, the key form is the medical report. This form is the mechanism for communication between the health professional and the driver licensing authority about the patient's fitness (or otherwise) to drive, albeit via the patient/driver. It should be completed with details of any medical requirements not met as well as details of recommended restrictions and monitoring requirements for a conditional licence. For privacy reasons, only medical information relevant to the patient's fitness to drive should be included on this form.

The local driver licensing authority will provide a blank report to the patient, who will present it to their health professional for completion and signing. Some driver licensing authorities insert personal details on their medical report forms before them issuing to a driver. In these circumstances, drivers can only obtain the form by attending a motor registry branch or by calling the authority's contact centre. Electronic forms are also available from some driver licence agencies and can be accessed online or through some practice management software systems. The completed form is returned to the driver for forwarding to the driver licensing authority. The forms used by each state or territory differ in certain administrative aspects but should contain the key elements described in Appendix 2. Forms. Some states or territories may provide an electronic or online version of the medical report for completion by health professionals.

5.2.2. When assessing fitness to drive in the course of patient treatment

If in the course of treatment it is considered that a patient's condition may affect their ability to drive safely, the health professional should, in the first instance, encourage the patient to report their condition to the driver licensing authority. A standard form, *Medical condition notification form*, has been produced to facilitate this process. Refer to Appendix 2.2. Medical condition notification form or visit www.austroads.com.au. If necessary, the health professional may feel obliged to make a report directly to the driver licensing authority using a copy of this form. Most driver licensing authorities will also accept a letter from the treating practitioner or specialist. Please ensure adequate driver identifying details are included (e.g. driver full name, address, date of birth).

Note that such reporting is not required for temporary conditions. Such conditions do not have an impact on licence status (refer to section 2.2.3. Temporary conditions), but the patient should be advised not to drive until the temporary situation is resolved.

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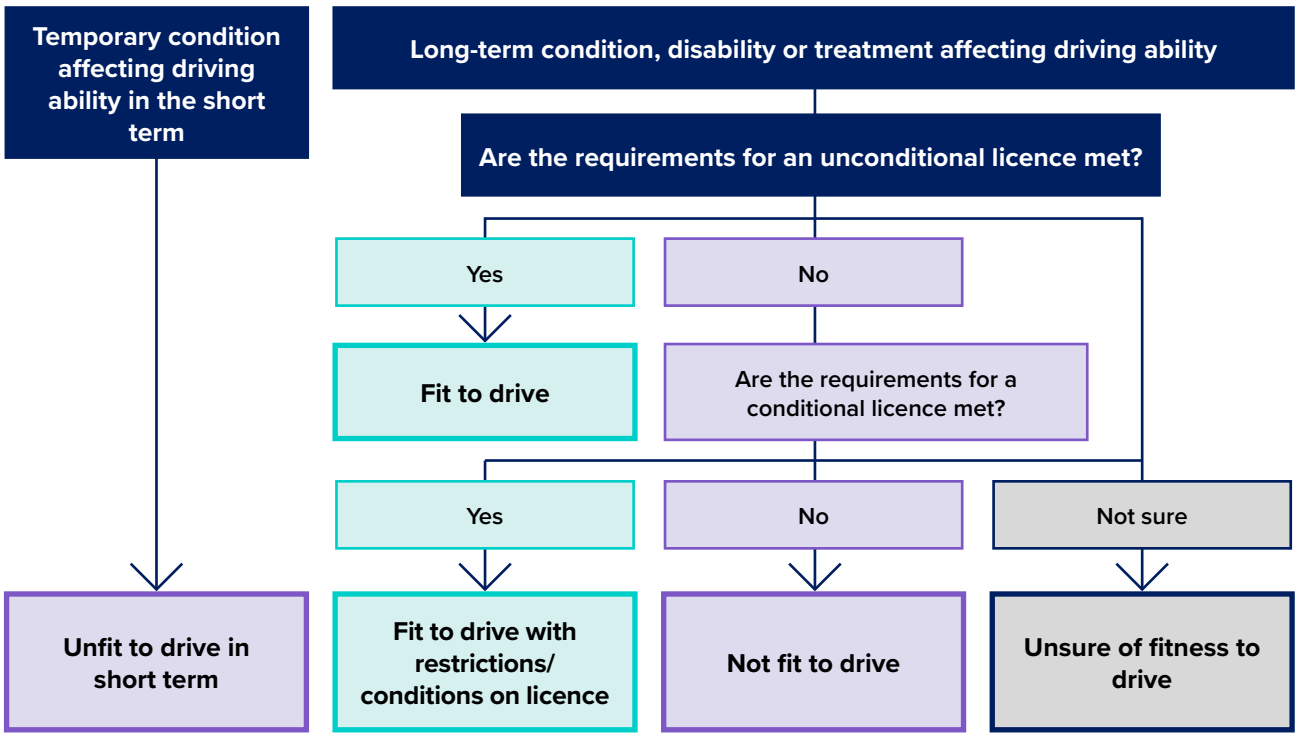
PART B.
Medical standards

Fitness to drive assessment

Fitness to drive decision-making process and key assessment considerations



Key assessment steps and questions

☑ *Establish the medical and driving history and consider the licence type*

- Note on the medical report if consulting with a person for the first time without access to their clinical history

☑ *Undertake a clinical examination and consider the results, patient history and driving needs*

- Could fatigued driving exacerbate the person's condition or medications?
- Are there comorbidities that individually or additively impair driving ability?
- Does the person rely on other body systems for adaptation or compensation? Have these been assessed?

☑ *Inform and advise the patient of their fitness to drive and any driving restrictions*

- Is the patient capable of understanding, retaining or complying with this advice?
- For progressive conditions, plan for the potential impacts on future driving ability

☑ *Report to the driver licensing authority as appropriate*

- Check the legal requirements for reporting with the local driver licensing authority
- Consider reporting to the driver licensing authority if the person continues driving despite appropriate advice and is likely to endanger the public

☑ *Record keeping, sharing and follow-up*

- Document the advice in the person's patient file
- Has your advice been shared with the patient's referring GP and/or other treating physicians?

Assessment and licensing responsibilities, obligations and considerations

DRIVER	HEALTH PROFESSIONAL	DRIVER LICENSING AUTHORITY
		
Responsible for meeting licensing obligations and managing their health conditions	Assesses driving fitness by: • evaluating conditions against the medical standards • providing advice to the driver on their fitness to drive	Makes the final licensing decision based on: • private and commercial licensing standards • medical advice and driver information
Licensing obligations • Follow licensing requirements, including licence conditions or driving restrictions • Report health changes within a reasonable timeframe • Follow medical advice • Provide accurate information to health professionals and the driver licensing authority	**Medical and physical conditions affecting driving** • Temporary conditions • Substance misuse and intoxication • Chronic illness and conditions • Disabilities • Age-related changes • Multiple medical conditions • Medications and other treatments	**Medical advice and driver information** • Advice from medical professionals • Advice from independent medical panels • Recommendations for licence conditions • Periodic medical review • Driving history
	Health professional's advice • Supports drivers to understand the impact of their condition and meet their licensing obligations • Supports driver licensing authority make final decision	**Driver licensing decision** • Issue • Renew • Apply a condition • Suspend • Cancel

Further information

- The driving task and assessing medical conditions refer to Part A section 2. Assessing fitness to drive – general guidance
- Roles, responsibilities and reporting options refer to Part A section 3. Roles and responsibilities
- Driver licensing standards and conditional licensing refer to Part A section 4. Licensing and medical fitness to drive
- Step-by-step guidance to performing an assessment refer to Part A section 5. Assessment and reporting process – step by step

1. Blackouts

1.1. Relevance to the driving task

For the purposes of this standard, the term 'blackout' means a transient impairment or loss of consciousness. Loss of consciousness is clearly incompatible with safe driving. The evidence for crash risk associated with various causes of blackout is discussed in the relevant chapters. This chapter provides guidance regarding the general management of blackouts, with cross-reference to relevant chapters as per Figure 6. Management of blackouts and driving.

1.2. General assessment and management guidelines

1.2.1. General considerations[1–4]

Blackouts may occur due to a range of mechanisms including:

- vasovagal syncope or 'faint', which accounts for more than 50 per cent of blackouts and may be due to factors such as hot weather, emotion or venepuncture but may also be due to more serious causes that may recur
- syncope due to other cardiovascular causes such as structural heart disease, arrhythmias or vascular disease
- epileptic seizure, which accounts for less than 10 per cent of blackouts
- other causes including metabolic causes (e.g. hypoglycaemia), drug intoxication or a sleep disorder.

Determination of the mechanism of a blackout may be straightforward based on history, investigations and specialist referral, and the person may be managed as per the appropriate chapter. Alternatively, it may require extensive cardiovascular and neurological investigations and referral to several specialists. People should be advised not to drive until the mechanism is ascertained and the corresponding standard met.

Some drivers may attribute a crash or driving mishap to a 'blackout' to excuse an event that occurred for some other reason such as inattention or distraction (e.g. a mobile phone conversation). There will also be a small proportion of cases in which a clear cause cannot be established.

1.2.2. Vasovagal syncope[5]

The most common cause of transient loss of consciousness is vasovagal syncope ('fainting'). Where this has been triggered by a well-defined provoking factor or a situation that is unlikely to recur while driving (e.g. prolonged standing, venepuncture or emotional situation), it is not necessary to restrict driving. However, vasovagal syncope may also result from other causes that are not so benign. In such cases, fitness to drive should be assessed according to the cardiovascular conditions standards for syncope (refer to section 2. Cardiovascular conditions).

1.2.3. Blackouts due to medical causes not covered in the standards

If the cause of the blackout is determined to be a medical condition not covered in the standards, then first principles regarding fitness to drive should be applied (refer to Part A section 2. Assessing fitness to drive – general guidance). Considerations include the likelihood of recurrence of blackout and the treatability of the condition as well as the nature of the driving task. There should also be an appropriate review period. A more stringent approach should be considered for commercial vehicle drivers.

1.2.4. Blackouts of undetermined mechanism

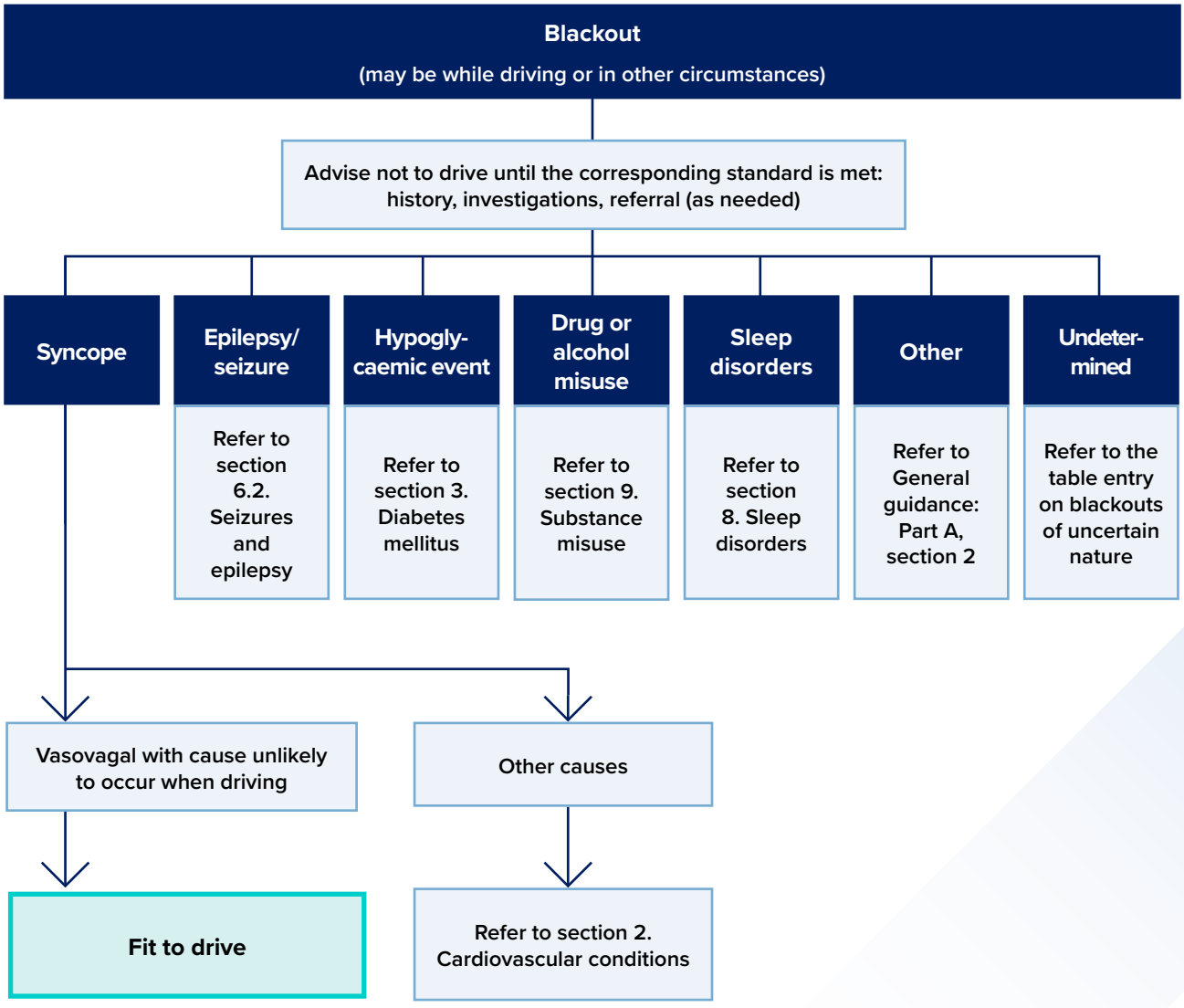
If, despite extensive investigation, the mechanism of a blackout cannot be determined, fitness to drive should be assessed according to section 1.3. Medical standards for licensing. The standards for blackout of undetermined mechanism are similar to those for seizure.

1.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following tables. Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Where a firm diagnosis has been made, the standard appropriate to the condition should be referred to in this publication (refer to Figure 6. Management of blackouts and driving). For blackouts due to medical causes not covered in the standard, refer to first principles (refer to Part A section 2. Assessing fitness to drive – general guidance). For blackouts where, after investigation, it is not possible to diagnose one of the conditions covered elsewhere in this publication, refer to the table for blackouts of uncertain nature over the page.

Figure 6. Management of blackouts and driving



Medical standards for licensing – blackouts of uncertain nature Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in Table 3)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in Table 3)
Blackouts – episode(s) or impaired consciousness – of uncertain nature	**A person should not drive for 6 months following a single blackout of undetermined nature.** **A person should not drive for 12 months following two or more blackouts of undetermined nature separated by a 24-hour period.** A person is **not** fit to hold an **unconditional licence**: • if the person has experienced blackouts that cannot be diagnosed as syncope, seizure or another condition. If there has been a **single blackout** or more than one blackout within a 24-hour period, a **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criterion is met: • there have been no further blackouts for at least **6 months**. If there have been **two or more blackouts** separated by at least 24 hours, a **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criterion is met: • there have been no further blackouts for at least **12 months**.	**A person should not drive for 5 years following a single blackout of undetermined nature.** **A person should not drive for 10 years following two or more blackouts of undetermined nature separated by a 24-hour period.** A person is **not** fit to hold an **unconditional licence**: • if the person has experienced blackouts that cannot be diagnosed as syncope, seizure or another condition. If there has been a **single blackout** or more than one blackout within a 24-hour period, a **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by an **appropriate specialist** as to whether the following criterion is met: • there have been no further blackouts for at least **5 years**. If there have been **two or more blackouts** separated by at least 24 hours, a **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by an **appropriate specialist** as to whether the following criterion is met: • there have been no further blackouts for at least **10 years**.

Medical standards for licensing – blackouts of uncertain nature		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in Table 3)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in Table 3)
Exceptional cases	Where a person with one or more blackouts of undetermined mechanism does not meet the standards above for a conditional licence but may, in the opinion of the treating specialist, be safe to drive, a **conditional licence** may be considered by the driver licensing authority, subject to at least **annual review**: • if the driver licensing authority, after considering information provided by the **treating specialist(s)**, considers that the risk of a crash caused by a blackout is acceptably low.	Where a person with one or more blackouts of undetermined mechanism does not meet the standards above for a **conditional licence** but may, in the opinion of the treating specialist, be safe to drive, a **conditional licence** may be considered by the driver licensing authority, subject to at least **annual review**: • if the driver licensing authority, after considering information provided by the **treating specialist(s)**, considers that the risk of a crash caused by a blackout is acceptably low.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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2. Cardiovascular conditions

2.1. Relevance to the driving task

2.1.1. Effects of cardiovascular conditions on driving

Cardiovascular conditions may affect the ability to drive safely due to sudden incapacity such as from a heart attack or arrhythmia. They may also affect concentration and the ability to control a vehicle due to the onset of chest pain, palpitations or breathlessness.

Cardiovascular conditions may also have end-organ effects such as on the brain (stroke), the extremities and the eyes. The relevant chapters should be referred to for advice on the assessment and requirements for these effects (refer to section 6. Neurological conditions and section 10. Vision and eye disorders).

2.1.2. Effects on the heart

A further problem in those who have established ischaemic heart disease is that situations experienced while driving may lead to a faster heart rate and fluctuation in blood pressure, which could trigger angina or even infarction.

2.1.3. Evidence of crash risk[1,2]

Evidence suggests that people who have severe and even fatal heart attacks while driving may have enough warning to slow down or stop before losing consciousness, since less than half of such attacks result in property damage and injury. However, sometimes no warning occurs or a warning sign is misinterpreted or ignored, and this may result in severe injury or death to the driver and other road users. The quality of available evidence is variable and there are a number of sources of potential bias, so drawing clear conclusions is not always possible (refer to Part A section 1.5. Development and evidence base).

2.2. General assessment and management guidelines[3–5]

2.2.1. Non-driving periods

A number of cardiovascular incidents and procedures affect short-term driving capacity as well as long-term licensing status – for example, acute myocardial infarction and cardiac surgery. Such situations present an obvious driving risk that cannot be addressed by the licensing process in the short term. The person should be advised not to drive for the appropriate period, as shown in Table 5. Suggested non-driving periods after cardiovascular events or procedures.

The variation in non-driving periods reflects the varying effects of these conditions and is based on expert opinion. These non-driving periods are minimum advisory periods only and are not enforceable by the licensing process. The recommendations regarding long-term licence status (including conditional licences) should be considered once the condition has stabilised and driving capacity can be assessed as per the licensing standards outlined in this chapter.

2.2.2. Ischaemic heart disease

In people with ischaemic heart disease, the severity rather than the mere presence of ischaemic heart disease should be the primary consideration in assessing fitness to drive.

Health professionals should consider any symptoms of sufficient severity to be a risk while driving. Those who have had a previous myocardial infarction or similar event are at greater risk of recurrence than the normal population, so cardiac history is an important consideration. An electrocardiogram (ECG) should be performed if clinically indicated.

Exercise testing

The Bruce protocol or equivalent is recommended for formal exercise testing. Where a patient is not capable of performing a treadmill test due to a medical condition, for example osteoarthritis of the knee, an equivalent stress test may be used. Nomograms for assessing functional capacity are shown in Figure 7 and Figure 8.

Suspected angina pectoris

Where chest pains of uncertain origin are reported, every attempt should be made to reach a diagnosis. In the meantime, the person should be advised to restrict their driving until their licence status is determined, particularly in the case of commercial vehicle drivers. If the tests are positive or the person remains symptomatic and requires antianginal medication to control symptoms, the requirements listed for proven angina pectoris apply (refer to page 73).

Risk factors

Multiple risk factors interact in the development of ischaemic heart disease and stroke. These factors include age, gender, blood pressure, smoking, total cholesterol:HDL ratio, diabetes and ECG evidence of left ventricular hypertrophy. The combined effect of these factors on risk of cardiovascular disease may be calculated using the Australian Cardiovascular Risk Charts (an electronic calculator is available at www.cvdcheck.org.au).

Routine screening for these risk factors is not required for licensing purposes, except where specified for certain commercial vehicle drivers as part of their additional accreditation or endorsement requirements. However, when a risk factor such as high blood pressure is being managed, it is good practice to assess other risk factors and to calculate overall risk. This risk assessment may be helpful additional information in determining fitness to drive, especially for commercial vehicle drivers (refer also to section 2.2.3. High blood pressure).

Table 5. Suggested non-driving periods after cardiovascular events or procedures

Event/procedure	Minimum non-driving period (advisory) – private vehicle drivers	Minimum non-driving period (advisory) – commercial vehicle drivers
Ischaemic heart disease		
Acute myocardial infarction	2 weeks	4 weeks
Percutaneous coronary intervention – for example, for angioplasty	2 days	4 weeks
Coronary artery bypass grafts	4 weeks	3 months
Disorders of rate, rhythm and conduction		
Cardiac arrest	6 months	6 months
Implantable cardioverter defibrillator (ICD) insertion	6 months after cardiac arrest	6 months for primary prevention Not applicable for secondary prevention
Generator change of an ICD	2 weeks	2 weeks for primary prevention Not applicable for secondary prevention
ICD therapy associated with symptoms of haemodynamic compromise	4 weeks	Not applicable
Cardiac pacemaker insertion	2 weeks	4 weeks
Vascular disease		
Aneurysm repair	4 weeks	3 months
Valvular replacement (including treatment with MitraClips and transcutaneous aortic valve replacement)	4 weeks	3 months

Event/procedure	Minimum non-driving period (advisory) – private vehicle drivers	Minimum non-driving period (advisory) – commercial vehicle drivers
Other		
Deep vein thrombosis	2 weeks	2 weeks
Heart/lung transplant	6 weeks	3 months
Ventricular assist device	3 months	Not applicable
Pulmonary embolism	6 weeks	6 weeks
Syncope (due to cardiovascular causes)	4 weeks	3 months

2.2.3. High blood pressure

The cut-off blood pressure values at which a person is considered unfit to hold an unconditional licence do not reflect usual goals for managing hypertension. Rather, they reflect levels that are likely to be associated with sudden incapacity due to neurological events (e.g. stroke). The cut-off points are based on expert opinion.

It is a general requirement that conditional licences for commercial vehicle drivers are issued by the driver licensing authority based on the advice of an appropriate medical specialist and that these drivers are reviewed periodically by the specialist to determine their ongoing fitness to drive (refer to Part A section 4.4. Conditional licences). In the case of high blood pressure, ongoing fitness to drive may be assessed by the treating general practitioner, provided this is mutually agreed by the specialist and the general practitioner. The initial recommendation of a conditional licence must, however, be based on the opinion of the specialist.

2.2.4. Cardiac surgery (open chest)

Cardiac surgery may be performed for various reasons including valve replacement, excision of atrial myxoma and correction of septal defects. In some cases this is curative of the underlying disorder and so will not affect licence status for private or commercial vehicle drivers (refer also to Table 5. Suggested non-driving periods after cardiovascular events or procedures). In other cases, the condition may not be stabilised, and the effect on driving safety and hence on licence status needs to be individually assessed. All cardiac surgery patients should be advised regarding safety of driving in the short term as for any other post-surgery patient (e.g. taking into account the limitation of chest and shoulder movements after sternotomy).

2.2.5. Disorders of rate, rhythm or conduction

People with recurrent arrhythmias causing syncope or pre-syncope are usually not fit to drive. A conditional licence may be considered after appropriate treatment and an event-free non-driving period (refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures).

2.2.6. Implantable cardioverter defibrillators[6,7]

People fitted with an implantable cardioverter defibrillator (ICD) have a risk of sudden incapacity, which poses a crash risk. The risk is mainly a consequence of the underlying condition; however, there is also a risk of inappropriate discharge of the device (i.e. when there is no ventricular arrhythmia). This risk is considered unacceptable for commercial vehicle drivers to hold an unconditional licence. A conditional commercial licence may be considered by the driver licensing authority on the advice of a specialist in electrophysiology based on the nature of the driving tasks and criteria outlined in the medical standards table when the device is inserted for primary prevention. A person is not fit to hold a conditional commercial licence when the ICD is inserted for secondary prevention.

2.2.7. Aneurysms[8]

Thoracic aortic aneurysms are largely asymptomatic until a sudden and catastrophic event occurs, such as rupture or dissection. Such events are rapidly fatal in a large proportion of patients. Risk varies with the type and size of aneurysm. The standard is set more stringently for atherosclerotic aneurysms or aneurysms associated with bicuspid aortic valve, compared with aneurysms associated with genetic aortopathy, including Marfan's, Turner's and Ehlers-Danlos syndromes, and familial aortopathy.

2.2.8. Long-term anticoagulant therapy

Long-term anticoagulant therapy may be used to lessen the risk of emboli in disorders of cardiac rhythm, following valve replacement, for deep venous thrombosis and other similar conditions. If not adequately controlled, there is a risk of bleeding that, in the case of an intracranial bleed, may acutely affect driving. People on private vehicle licences may drive without licence restriction and without reporting to the driver licensing authority if the treating doctor considers anticoagulation is maintained at the appropriate level for the underlying condition. Commercial vehicle drivers do not meet the requirements for an unconditional licence and may drive only with a conditional licence.

2.2.9. Deep vein thrombosis and pulmonary embolism

While deep vein thrombosis (DVT) may lead to an acute pulmonary embolus (PE), there is little evidence that such an event causes crashes. Therefore, no standard applies for either DVT or PE, although non-driving periods are advised (refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures). If long-term anticoagulation treatment is prescribed, the standard for anticoagulant therapy should be applied (refer to section 2.2.8. Long-term anticoagulant therapy).

2.2.10. Syncope[2,9–11]

If an episode of syncope is vasovagal in nature with a clear-cut precipitating factor (such as venesection), and the situation is unlikely to occur while driving, the person may generally resume driving within 24 hours. With syncope due to other cardiovascular causes, an appropriate non-driving period should be advised (at least four weeks for private vehicle drivers and at least three months for commercial vehicle drivers), after which time their ongoing fitness to drive should be assessed (refer to page 89). In cases where it is not possible to determine an episode of loss of consciousness is due to syncope or some other cause, refer to section 1.2.4. Blackouts of undetermined mechanism.

2.2.11. Ventricular assist devices[12–14]

A ventricular assist device (VAD) is an electromechanical circulatory device used to partially or completely replace the function of a failing heart. Some VADs are intended for short-term use, typically for patients recovering from heart attacks or heart surgery. Others are intended for long-term use (months to years and in some cases for life), typically for heart failure. They carry a small risk of stroke or device failure. The driver licensing authority may consider a conditional licence for a private driver with a LVAD or BiVAD, but not for commercial drivers.

As part of ongoing recovery, patients should undergo a rehabilitation program to ensure confidence in using the equipment.

People with very severe heart failure may have persisting cognitive or neurological impairment and warrant a practical driving assessment (refer to Part A section 2.3.1. Practical driver assessments).

2.2.12. Congenital disorders

The impact of congenital heart disorders on driving safety relates to the effects of the congenital lesion on systemic ventricular function and complicating arrhythmias. Pacemakers and ICDs are employed in the management of some individuals with congenital heart disease. People on private vehicle licences may drive without licence restriction and without reporting to the driver licensing authority if they have uncomplicated congenital heart disease with no or minimal haemodynamic effect (e.g. pulmonary stenosis, atrial septal defect, small ventricular septal defect, bicuspid aortic valve, patent ductus arteriosus or mild coarctation of the aorta), and there are no or minimal symptoms (chest pain, palpitations, breathlessness).

The relevant sections on atrial fibrillation, paroxysmal arrhythmias, implantable cardioverter defibrillators, cardiac pacemaker and heart failure may also apply to drivers with complex congenital heart disease.

Figure 7. Bruce protocol nomogram for men

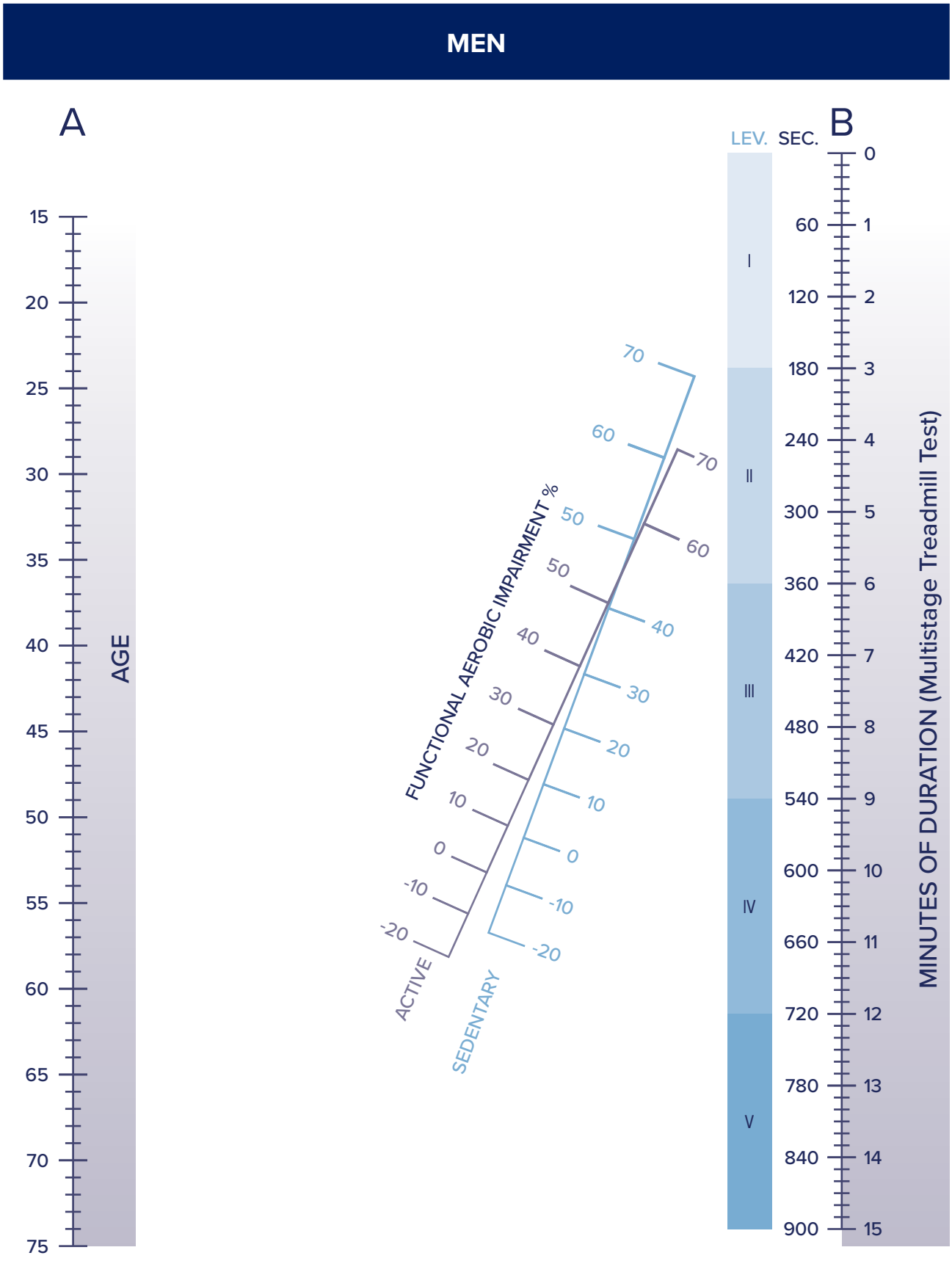
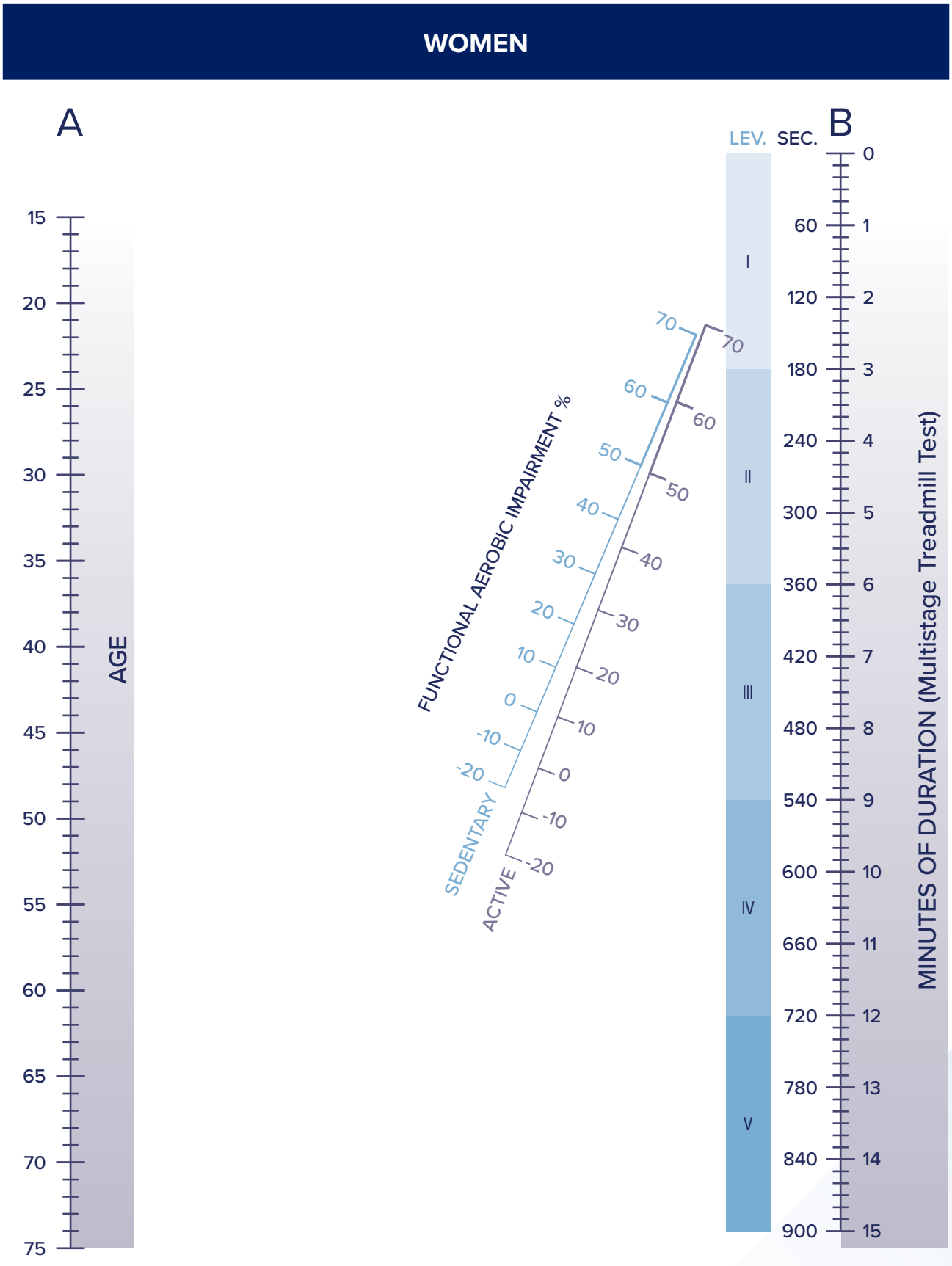


Figure 8. Bruce protocol nomogram for women



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2.3. Medical standards for licensing

2.3.1. Medical criteria

Requirements for unconditional and conditional licences are outlined in the following tables. Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

The standards for medical conditions in the tables on page 72 to page 89 cover:

- ischaemic heart disease
  - acute myocardial infarction
  - angina
  - coronary artery bypass grafting
  - percutaneous coronary intervention
- disorders of rate, rhythm or conduction
  - atrial fibrillation
  - arrhythmia
  - cardiac arrest
  - cardiac pacemaker
  - implantable cardioverter defibrillator
  - ECG changes
- vascular disease
  - aneurysms
  - deep vein thrombosis
  - pulmonary embolism
  - valvular heart disease
- myocardial diseases
  - dilated cardiomyopathy
  - hypertrophic cardiomyopathy
- other conditions and treatments
  - anticoagulant therapy
  - congenital disorders
  - heart failure
  - heart transplant
  - ventricular assist devices
  - hypertension
  - stroke
  - syncope.

2.3.2. Conditional licences and periodic review

Because many cardiac conditions are stabilised and not cured, periodic review is recommended. In general, the review interval should be a minimum of 12 months unless otherwise recommended by the treating doctor/specialist, taking into consideration the licence type (e.g. commercial versus private vehicle), other health risk factors and how well the underlying illness is managed.

Where a condition has been effectively treated and there is minimal risk of recurrence, the driver may apply for reinstatement of an unconditional licence on the advice of the treating doctor or specialist (in the case of a commercial vehicle driver). Refer to Part A section 4.5. Reinstatement of licences or removal or variation of licence conditions.

Medical standards for licensing – cardiovascular conditions

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Ischaemic heart disease		
Acute myocardial infarction (AMI) Refer also to coronary artery bypass grafting and to percutaneous coronary intervention.	The person should **not** drive for at least **2 weeks** after an AMI. A person is **not** fit to hold an **unconditional licence**: • if the person has had an AMI. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • it is at least **2 weeks** after an uncomplicated AMI; **and** • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). Fitness thereafter should be assessed in terms of general convalescence.	The person should **not** drive for at least **4 weeks** after an AMI. A person is **not** fit to hold an **unconditional licence**: • if the person has had an AMI. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **4 weeks** after an uncomplicated AMI; **and** • there is a satisfactory response to treatment; **and** • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there is no evidence of severe ischaemia – that is, less than 2 mm ST segment depression on an exercise ECG or a reversible regional wall abnormality on an exercise stress echocardiogram or absence of a large defect on a stress perfusion scan; **and** • there is an ejection fraction ≥ 40%; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Angina	A person with angina, which is usually absent on mild exertion, and who is compliant with treatment may drive without licence restriction and without notification to the driver licensing authority, subject to periodic monitoring. A person is **not** fit to hold an **unconditional licence**: • if the person is subject to angina pectoris at rest or on minimal exertion despite medical therapy, or has unstable angina. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).	A person is **not** fit to hold an **unconditional licence**: • if the person is subject to angina pectoris. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • either or both: – there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; – a resting or stress echocardiogram or a myocardial perfusion study, or both, show no evidence of ischaemia; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). If myocardial ischaemia is demonstrated, a coronary angiogram may be offered. A **conditional licence** may be considered, subject to **annual review**, if the following criterion is met: • the coronary angiogram (invasive or CT) shows lumen diameter reduction < 70% in a major coronary branch, and < 50% in the left main coronary artery. If the result of the angiogram shows a lumen diameter reduction of ≥ 70% in a major coronary branch and < 50% in the left main coronary artery (or if an angiogram is not conducted), a **conditional licence** may be considered, subject to **annual review**, if the following criteria are met: • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there is no evidence of severe ischaemia – that is, less than 2 mm ST segment depression on an exercise ECG or a reversible regional wall abnormality on an exercise stress echocardiogram or absence of a large defect on a stress perfusion scan; **and** • there is an ejection fraction ≥ 40%; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). The above criteria also apply if an angiogram is not conducted. Where surgery or percutaneous coronary intervention is undertaken to relieve the angina, the requirements listed in the table apply.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Coronary artery bypass grafting (CABG)	The person should **not** drive for at least **4 weeks** after CABG. A person is **not** fit to hold an **unconditional licence**: • if the person requires or has had CABG. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • it is at least **4 weeks** after CABG; **and** • there is satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • there is minimal residual musculoskeletal pain after the chest surgery.	The person should **not** drive for at least **3 months** after CABG. A person is **not** fit to hold an **unconditional licence**: • if the person requires or has had CABG. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **3 months** after CABG; **and** • there is a satisfactory response to treatment; **and** • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there is no evidence of severe ischaemia – that is, less than 2 mm ST segment depression on an exercise ECG or a reversible regional wall abnormality on an exercise stress echocardiogram or absence of a large defect on a stress perfusion scan; **and** • there is an ejection fraction ≥ 40%; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • there is minimal residual musculoskeletal pain after the chest surgery.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Percutaneous coronary intervention (PCI) (e.g. angioplasty/ stent)	The person should **not** drive for at least **2 days** after the PCI. A person is **not** fit to hold an **unconditional licence**: • if the person requires or has had a PCI. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • there was no AMI immediately before or after the PCI; **and** • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).	The person should **not** drive for at least **4 weeks** after the PCI. A person is **not** fit to hold an **unconditional licence**: • if the person requires or has had a PCI. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **4 weeks** after the PCI; **and** • there is a satisfactory response to treatment; **and** • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there is no evidence of severe ischaemia – that is, less than 2 mm ST segment depression on an exercise ECG or a reversible regional wall abnormality on an exercise stress echocardiogram or absence of a large defect on a stress perfusion scan; **and** • there is an ejection fraction ≥ 40%; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Disorders of rate, rhythm and conduction		
Atrial fibrillation	The non-driving period will depend on the method of treatment – see below. A person is **not** fit to hold an **unconditional licence**: • if an episode of fibrillation results in syncope or incapacitating symptoms. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). The person should not drive for: • at least **1 week** following PCI; • at least **1 week** following initiation of successful medical treatment; • an appropriate time following open chest surgery.	The non-driving period will depend on the method of treatment – see below. A person is **not** fit to hold an **unconditional licence**: • if the person has a history of recurrent or persistent arrhythmia that may result in syncope or incapacitating symptoms. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • appropriate follow-up has been arranged. The person should not drive for: • at least **4 weeks** following PCI; • at least **4 weeks** following initiation of successful medical treatment; • at least **3 months** following open chest surgery. If the person is taking anticoagulants refer to ‘anticoagulant therapy’.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Paroxysmal arrhythmias (e.g. supraventricular tachycardia, atrial flutter, idiopathic ventricular tachycardia)	A person is **not** fit to hold an **unconditional licence**: • if there was near or definite collapse. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review***, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are normal haemodynamic responses at a moderate level of exercise; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). ** Where the condition is considered to be cured, the requirement for periodic review may be waived.*	The non-driving period is at least **4 weeks**. A person is **not** fit to hold an **unconditional licence**: • if there was near or definite collapse. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review***, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are normal haemodynamic responses at a moderate level of exercise; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). The person should not drive for: • at least **4 weeks** following PCI; • at least **4 weeks** following initiation of successful medical treatment. ** Where the condition is considered to be cured, the requirement for periodic review may be waived.*

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Cardiac arrest	The person should **not** drive for at least **6 months** following a cardiac arrest. Limited exceptions apply – see below*. A person is **not** fit to hold an **unconditional licence**: • if the person has suffered a cardiac arrest. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • it is at least **6 months** after the arrest; **and** • the cause of the cardiac arrest and response to treatment has been considered; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). ** A shorter non-driving period may be considered subject to specialist assessment if the cardiac arrest has occurred within 48 hours of an acute myocardial infarction, or if the arrhythmia causing the cardiac arrest has been addressed by radio frequency ablation surgery or by pacemaker implantation.*	The person should **not** drive for at least **6 months** following a cardiac arrest. A person is **not** fit to hold an **unconditional licence**: • if the person has suffered a cardiac arrest. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **6 months** after the arrest; **and** • a reversible cause is identified and recurrence is unlikely; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Cardiac pacemaker Refer also to 'implantable cardioverter defibrillator' if appropriate.	The person should **not** drive for at least **2 weeks** after a pacemaker is inserted. A person is **not** fit to hold an **unconditional licence**: • if a cardiac pacemaker is required or has been implanted or replaced. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • it is at least **2 weeks** after insertion of the cardiac pacemaker; **and** • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).	The person should **not** drive for at least **4 weeks** after a pacemaker is inserted. A person is **not** fit to hold an **unconditional licence**: • if a cardiac pacemaker is required or has been implanted or replaced. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **4 weeks** after insertion of the cardiac pacemaker; **and** • the relative risks of pacemaker dysfunction have been considered; **and** • there are normal haemodynamic responses at a moderate level of exercise; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Implantable cardioverter defibrillator (ICD)	The non-driving period will depend on the reason for ICD implantation – see below. A person is **not** fit to hold an **unconditional licence:** • if the person requires or has had an ICD implanted for ventricular arrhythmias. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • the ICD has been implanted for an episode of cardiac arrest and the person has been asymptomatic for **6 months**; **or** • the ICD has been prophylactically implanted for at least **2 weeks**; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). A person should not drive: • for **2 weeks** after a generator change of an ICD; • for at least **4 weeks** after appropriate ICD therapy associated with symptoms of haemodynamic compromise (if syncopal, refer to 'syncope').	The person should not drive for at **least 6 months** after the ICD is implanted. A person is **not** fit to hold an **unconditional licence** or a **conditional licence**: • if the ICD was implanted to manage ventricular arrhythmias (secondary prevention). A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving tasks and information provided by the **treating specialist*** as to whether the following criteria are met: • the ICD was implanted for primary prevention; **and** • it is at least **6 months** after the insertion of the ICD; **and** • there are no episodes of atrial fibrillation; **and** • there are no discharges from the defibrillator; **and** • interrogation of the ICD shows no evidence of anti-tachycardic pacing; **and** • there is an ejection fraction ≥ 40%; **and** • there is an exercise tolerance > 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional test protocol; **and** • there is no evidence of severe ischaemia – that is, less than 2mm ST segment depression on an exercise test or reversible regional wall abnormality on an exercise stress echocardiogram or absence of a large defect on a stress perfusion scan; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). ** The initial assessment is to be performed by the treating electrophysiologist.*

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
ECG changes Strain patterns, bundle branch blocks, heart block, etc. Refer also to 'cardiac pacemaker'.	The person should **not** drive for at least **2 weeks** following initiation of treatment. A person is **not** fit to hold an **unconditional licence**: • if the conduction defect is causing symptoms. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • the condition has been treated procedurally or medically for at least **2 weeks**; **and** • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness). ** Where the condition is considered to be cured, the requirement for periodic review may be waived.*	The person should **not** drive for at least **3 months** following initiation of treatment. A person is **not** fit to hold an **unconditional licence**: • if the person has an electrocardiographic abnormality – for example, left bundle branch block, right bundle branch block, pre-excitation, prolonged QT interval or changes suggestive of myocardial ischaemia or previous myocardial infarction. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • all of the following: – the condition has been treated procedurally or medically for at least **3 months**; **and** – there is a satisfactory response to treatment; **and** – there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **or** • follow-up investigation has excluded underlying cardiac disease. ** Where the condition is considered to be cured, the requirement for periodic review may be waived.*

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Vascular disease		
Aneurysms – abdominal and thoracic	The person should **not** drive for at least **4 weeks** after repair. A person is **not** fit to hold an **unconditional** licence: • if the person has an unrepaired aortic aneurysm – thoracic or abdominal. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • both: – it is at least **4 weeks** after repair; **and** – the response to treatment is satisfactory, according to the **treating vascular surgeon**; • or – in the case of atherosclerotic aneurysm or aneurysm associated with the bicuspid aortic valve, the aneurysm diameter is less than 55 mm; **or** – the diameter is less than 50 mm for all other aneurysms.	The person should **not** drive for at least **3 months** after repair. A person is **not** fit to hold an **unconditional licence**: • if the person has an unrepaired aortic aneurysm – thoracic or abdominal. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • both: – it is at least **3 months** after repair; **and** – the response to treatment is satisfactory, according to the **treating vascular surgeon**; • or – in the case of atherosclerotic aneurysm or aneurysm associated with the bicuspid aortic valve, the aneurysm diameter is less than 55 mm; **or** – the diameter is less than 50 mm for all other aneurysms.
Deep vein thrombosis (DVT)	There are no licensing criteria for DVT. For advisory non-driving period following DVT refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. For long-term anticoagulation refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. Refer also to section 2.2.8 in the text.	There are no licensing criteria for DVT. For advisory non-driving period following DVT refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. For long-term anticoagulation refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. Refer also to section 2.2.8 in the text.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Pulmonary embolism (PE)	There are no licensing criteria for PE. For advisory non-driving period following PE refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. For long-term anticoagulation refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. Refer also to section 2.2.8.	There are no licensing criteria for PE. For advisory non-driving period following PE refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. For long-term anticoagulation refer to Table 5. Suggested non-driving periods after cardiovascular events or procedures. Refer also to section 2.2.8.
Valvular heart disease (including treatment with MitraClips, tricuspid clips, transcutaneous aortic valve replacement and transcutaneous pulmonary valve replacement)	The person should **not** drive for at least **4 weeks** following valve repair. A person is **not** fit to hold an **unconditional licence**: • if the person has symptoms on moderate exertion. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • there is minimal residual musculoskeletal pain after chest surgery, if required.	The person should **not** drive for at least **4 weeks** following valve repair. A person is **not** fit to hold an **unconditional licence**: • if the person has any history or evidence of valve disease, with or without surgical repair or replacement, associated with symptoms or a history of embolism, arrhythmia, cardiac enlargement, abnormal ECG or high blood pressure; **or** • if the person is taking anticoagulants (a conditional licence may be issued subject to the requirements specified in Table 5. Suggested non-driving periods after cardiovascular events or procedures in relation to anticoagulant therapy). A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • the person's cardiological assessment shows valvular disease of no haemodynamic significance; **or** • all of the following: – it is **3 months** following surgery and there is no evidence of valvular dysfunction; **and** – there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** – there is minimal residual musculoskeletal pain after chest surgery.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Other cardiovascular diseases		
Anticoagulant therapy	A person on a private vehicle licence **may drive** without restriction and without reporting to the driver licensing authority, pending periodic review, if: • anticoagulation is maintained at the appropriate degree for the underlying condition.	A person is **not** fit to hold an **unconditional licence**: • if the person is on long-term anticoagulant therapy. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criterion is met: • anticoagulation is maintained at the appropriate degree for the underlying condition.
Congenital disorders Refer also to 'heart failure', 'atrial fibrillation', 'paroxysmal arrhythmias', 'cardiac pacemaker' and 'ICD'.	A person may drive without restriction and without reporting to the driver licensing authority if they have uncomplicated congenital heart disease and there are no or minimal symptoms relevant to driving. A person should **not** drive for a period of at least **4 weeks** after surgery to correct a congenital lesion. The person should not drive for at least **2 weeks** following a percutaneous procedure to treat a congenital lesion. A person is **not** fit to hold an **unconditional licence**: • if the person has a complicated congenital heart disorder. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criterion is met: • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).	A person should not drive for at least **3 months** following surgical treatment for congenital heart disease. A person should not drive for **4 weeks** following a percutaneous intervention for congenital heart disease. A person is **not** fit to hold an **unconditional licence:** • if the person has a complicated congenital heart disorder. A **conditional licence** may be considered by the driver licensing authority subject to **annual review** taking into account the nature of the driving task and the information provided by the **treating specialist** as to whether the following criteria are met: • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • the ejection fraction of the systemic ventricle is greater than 40%; **and** • there is a minor congenital disorder of no haemodynamic significance such as pulmonary stenosis, atrial septal defect, small ventricular septal defect, bicuspid aortic valve, patent ductus arteriosus or mild coarctation of the aorta; **or** • there has been surgical/percutaneous correction of the congenital lesion including atrial septal defect, ventricular septal defect, patent ductus arteriosus, coarctation, pulmonary stenosis, total correction of tetralogy of Fallot, or total correction of transposition of the great arteries, and there are no or minimal symptoms.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Dilated cardiomyopathy	A person is **not** fit to hold an **unconditional licence**: • if the person has a dilated cardiomyopathy. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • the person is not subject to arrhythmias. Cardiologist assessment is recommended for complex presentations.	A person is **not** fit to hold and **unconditional licence**: • if the person has a dilated cardiomyopathy. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • there is an ejection fraction ≥ 40%; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • the person is not subject to arrhythmias.
Hypertrophic cardiomyopathy (HCM)	A person is **not** fit to hold an **unconditional licence**: • if the person has HCM. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • the person is not subject to arrhythmias or syncope.	A person is **not** fit to hold an **unconditional licence**: • if the person has HCM. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • the left ventricular ejection fraction ≥ 40%; **and** • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there is an absence of: a history of syncope; severe left ventricular hypertrophy; a family history of sudden death; or ventricular arrhythmia on Holter testing; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Heart failure Refer also to 'ventricular assist devices'.	A person is **not** fit to hold an **unconditional licence**: • if symptoms arise on moderate exertion. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).	A person is **not** fit to hold an **unconditional licence:** • if the person has heart failure. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • there is a satisfactory response to treatment; **and** • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there is an ejection fraction ≥ 40%; **and** • the underlying cause of the heart failure is considered; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).
Heart transplant	The person should **not** drive for at least **6 weeks** post transplant. A person is **not** fit to hold an **unconditional licence**: • if the person requires or has had a heart or heart/lung transplant. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **6 weeks** after transplant; **and** • there is a satisfactory response to treatment; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).	The person should **not** drive for at least **3 months** post transplant. A person is **not** fit to hold an **unconditional licence**: • if the person requires or has had a heart or heart/lung transplant. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • it is at least **3 months** after transplant; **and** • there is a satisfactory response to treatment; **and** • there is an exercise tolerance ≥ 90% of the age/sex predicted exercise capacity according to the Bruce protocol or equivalent functional exercise test protocol; **and** • there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness).

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Ventricular assist devices (LVAD, BiVAD)	A person should **not** drive for at least **3 months** following insertion of a ventricular assist device. A person is **not** fit to hold an **unconditional licence**: • if the person requires an LVAD or BiVAD. A **conditional licence** may be considered by the driver licensing authority subject to **6-monthly review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • the device has been in situ for at least **3 months** and there have been no equipment problems during the preceding 2 weeks; **and** • anticoagulation is stable as per this standard; **and** • the medical condition is stable and satisfactorily controlled, and there are minimal symptoms relevant to driving (chest pain, palpitations, breathlessness); **and** • the person is confident in relation to all LVAD or BiVAD equipment. Where there is concern of cognitive or neurological impairment, a practical driver assessment should be conducted (refer to Part A section 2.3.1. Practical driver assessments).	A person is **not** fit to hold an **unconditional licence** or a **conditional licence**: • if the person requires a VAD of any type or an artificial heart.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Hypertension	A person is **not** fit to hold an **unconditional licence**: • if the person has blood pressure consistently > 200 systolic or > 110 diastolic (treated or untreated). A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • the blood pressure is well controlled; **and** • there are no side effects from the medication that will impair safe driving; **and** • there is no evidence of damage to target organs relevant to driving.	A person is **not** fit to hold an **unconditional licence**: • if the person has blood pressure consistently > 170 systolic or > 100 diastolic (treated or untreated). A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist*** as to whether the following criteria are met: • the person is treated with antihypertensive therapy and effective control of hypertension is achieved over a 4-week follow-up period; **and** • there are no side effects from the medication that will impair safe driving; **and** • there is no evidence of damage to target organs relevant to driving. ** Ongoing fitness to drive for commercial vehicle drivers may be assessed by the treating GP provided this is mutually agreed by the specialist, GP and driver licensing authority. The initial granting of a conditional licence must, however, be based on information provided by the specialist.*
Stroke	Refer to section 6. Neurological conditions.	Refer to section 6. Neurological conditions.

Medical standards for licensing – cardiovascular conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Syncope Refer also to section 1. Blackouts.	The person can resume driving within 24 hours if the episode was vasovagal in nature with a clear-cut precipitating factor (e.g. venesection) and the situation is unlikely to occur while driving. The driver licensing authority should not be notified. The person should **not** drive for at least **4 weeks** after syncope due to other cardiovascular causes. A person is **not** fit to hold an **unconditional licence**: • if the condition is severe enough to cause episodes of loss of consciousness without warning. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • the underlying cause has been identified; **and** • satisfactory treatment has been instituted; **and** • the person has been symptom-free for at least **4 weeks**.	The person can resume driving within 24 hours if the episode was vasovagal in nature with a clear-cut precipitating factor (e.g. venesection) and the situation is unlikely to occur while driving. The driver licensing authority should not be notified. The person should **not** drive for at least **3 months** after syncope due to other cardiovascular causes. A person is **not** fit to hold an **unconditional licence**: • if the condition is severe enough to cause episodes of loss of consciousness without warning. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating specialist** as to whether the following criteria are met: • the underlying cause has been identified; **and** • satisfactory treatment has been instituted; **and** • the person has been symptom-free for **3 months**.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

References and further reading

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3. Diabetes mellitus

Refer also to section 2. Cardiovascular conditions*, section* 8. Sleep disorders *and section* 10. Vision and eye disorders*.*

3.1. Relevance to the driving task

3.1.1. Effects of diabetes on driving[1–3]

Diabetes may affect a person's ability to drive, either through a 'severe hypoglycaemic event' or from end-organ effects on relevant functions, including effects on vision, the heart and the peripheral nerves and vasculature of the extremities, particularly the feet. In people with type 2 diabetes, sleep apnoea is also more common (refer to section 8. Sleep disorders). The main hazard in people with insulin-treated diabetes is the unexpected occurrence of hypoglycaemia.

3.1.2. Evidence of crash risk[1,4–7]

There is a small but appreciable increase in motor vehicle crash risk for drivers with diabetes. The potential effects of hypoglycaemia are of most concern to road safety. However, findings point to a higher risk among those with a history of severe hypoglycaemia. There is also evidence that 'tighter control', as measured by the HbA1c, may be associated with increased crash risk.

3.2. General assessment and management guidelines

General management of diabetes in relation to fitness to drive is summarised in Figure 10. Note, for the purpose of the diabetes standard, appropriate specialist means an endocrinologist or consultant physician specialising in diabetes. For general guidance on diabetes management refer to relevant best practice guidelines (e.g. Royal Australasian College of General Practitioners' *Management of type 2 diabetes: a handbook for general practice*[8] or the National Health and Medical Research Council's *National evidence based clinical care guidelines for type 1 diabetes for children, adolescents and adults*[9]).

3.2.1. Hypoglycaemia

Definition: severe hypoglycaemic event[6,8,9]

For the purposes of this document, a 'severe hypoglycaemic event' is defined as an event of hypoglycaemia of sufficient severity such that the person is unable to treat the hypoglycaemia themselves and so requires someone else to administer treatment. It includes hypoglycaemia causing loss of consciousness or seizure. It can occur during driving or at any other time of the day or night. A severe hypoglycaemic event is particularly relevant to driving because it affects

brain function and may cause impairment of perception, motor skills or consciousness. It may also cause abnormal behaviour. A severe hypoglycaemic event is to be distinguished from mild hypoglycaemic events, the latter with symptoms such as sweating, tremulousness, hunger and tingling around the mouth, which are common occurrences in the life of a person with diabetes treated with insulin and some hypoglycaemic agents.

Potential causes[7]

Hypoglycaemia may be caused by many factors including non-adherence or alteration to medication, unexpected exertion, alcohol intake or irregular meals. Meal regularity and variability in medication administration may be important considerations for long-distance commercial driving or for drivers operating on shifts. Impairment of consciousness and judgement can develop rapidly and result in loss of control of a vehicle. Excessively tight control may contribute to hypoglycaemia.

Advice to drivers

The driver should be advised not to drive if a severe hypoglycaemic event is experienced while driving or at any other time, until they have been cleared to drive by a medical practitioner. The driver should also be advised to take appropriate precautionary steps to help avoid a severe hypoglycaemic event – for example, by:

- complying with general medical review requirements as requested by their general practitioner or specialist
- not driving if either their blood glucose is at or less than 5 mmol/L or if, while wearing a continuous or flash glucose monitor, the predicted glucose level is showing downward trends into the hypoglycaemia range (measured when the vehicle is parked)
- wearing a continuous or flash glucose monitor, preferably with an active hypoglycaemia alert or alarm
- not driving for more than two hours without considering having a snack
- not delaying or missing a main meal
- self-monitoring blood glucose levels before driving and every two hours during a journey, as reasonably practical
- carrying adequate glucose in the vehicle for self-treatment
- treating mild hypoglycaemia if symptoms occur while driving including:
  - safely steering the vehicle to the side of the road
  - turning off the engine and removing the keys from the ignition
  - self-treating the low blood glucose
  - checking the blood glucose levels 15 minutes or more after the hypoglycaemia has been treated and ensuring it is above 5 mmol/L
  - not recommencing driving until feeling well and until at least 30 minutes after the blood glucose is above 5 mmol/L.

Non-driving period after a 'severe hypoglycaemic event'

If a severe hypoglycaemic event occurs (as defined in section 3.2.1. Hypoglycaemia), the person should not drive for a significant period of time and will need to be urgently assessed. The minimum period of time before returning to drive is generally six weeks because it often takes many weeks for patterns of glucose control and behaviour to be re-established and for any temporary 'impaired hypoglycaemia awareness' to resolve (see below). The non-driving period will depend on factors such as identifying the reason for the episode, the specialist's opinion and the type of motor vehicle licence. The specialist's recommendation for returning to driving should be based on the patient's behaviour and objective measures of glycaemic control (documented blood glucose) over a reasonable interval.

Impaired hypoglycaemic awareness [10–14]

Impaired hypoglycaemic awareness exists when a person does not regularly sense the usual early warning symptoms of mild hypoglycaemia such as sweating, tremulousness, hunger, tingling around the mouth, palpitations and headache. It markedly increases the risk of a severe hypoglycaemic event occurring and is therefore a risk for road safety. Rates of severe hypoglycaemia may be up to seven times higher compared with those who retain hypoglycaemia awareness. Impaired hypoglycaemia awareness occurs in 20–25 per cent of people with type 1 diabetes and about 10 per cent of those with type 2 diabetes. Prevalence is higher in older people and in those with a longer duration of diabetes.

Impaired hypoglycaemic awareness may be screened for using the Clarke questionnaire (refer to Figure 9. Clarke hypoglycaemia awareness survey), which may be particularly useful for people with insulin-treated diabetes of longer duration (more than 10 years), or following a severe hypoglycaemic event or after a crash. The use of devices such as continuous or flash glucose monitors do not replace the need for a person to be able to sense the warning signs of hypoglycaemia or to compensate for impaired hypoglycaemia awareness.

When impaired hypoglycaemia awareness develops in a person who has experienced a severe hypoglycaemic event, it may improve in the subsequent weeks and months if further hypoglycaemia can be avoided.

A person with persistent impaired hypoglycaemia awareness should be under the regular care of a medical practitioner with expert knowledge in managing diabetes (e.g. an endocrinologist or diabetes specialist), who should be involved in assessing their fitness to drive. As reflected in the standards table on page 101, any driver who has a persistent impaired hypoglycaemia awareness is generally not fit to drive unless their ability to experience early warning symptoms returns or they have an effective management strategy for lack of early warning symptoms. For private drivers, a conditional licence may be considered by the driver licensing authority, taking into account the opinion of an appropriate specialist, the nature and extent of the driving involved and the driver's self-care behaviours.

In managing impaired hypoglycaemia awareness, the medical practitioner should focus on aspects of the person's self-care to minimise a severe hypoglycaemic event occurring while driving, including steps described above (*Advice to drivers*). In addition, self-care behaviours that help to minimise severe hypoglycaemic events in general should be a major ongoing focus of regular diabetes care. This requires attention by both the medical practitioner and the person with diabetes to diet and exercise approaches, insulin regimens and blood glucose testing protocols.

3.2.2. Acute hyperglycaemia

While acute hyperglycaemia may affect some aspects of brain function, there is not enough evidence to determine the regular effects on driving performance and related crash risk. Each person with diabetes should be counselled about managing their diabetes during days when they are unwell and should be advised not to drive if they are acutely unwell with metabolically unstable diabetes.

3.2.3. Comorbidities and end-organ complications[1–3,8,9]

Assessment and management of comorbidities is an important aspect of managing people with diabetes with respect to their fitness to drive. This should be part of routine review as per recommended practice and may include, but is not limited to, the following.

Vision

Refer to section 10. Vision and eye disorders. Visual acuity should be tested annually. Retinal screening should be undertaken every second year if there is no retinopathy, or more frequently if at high risk. Visual field testing is not required unless clinically indicated.[7,8]

Neuropathy and foot care

While it can be difficult to be prescriptive about neuropathy in the context of driving, it is important that the severity of the condition is assessed. Adequate sensation and movement for the operation of foot controls is required (refer to section 6. Neurological conditions and section 5. Musculoskeletal conditions).

Sleep apnoea

Sleep apnoea is a common comorbidity affecting many people with type 2 diabetes and has substantial implications for road safety. The treating health professional should be alert to potential signs (e.g. BMI greater than 35) and symptoms, and apply the Epworth Sleepiness Scale as appropriate (refer to section 8. Sleep disorders).

Cardiovascular

There are no diabetes-specific medical standards for cardiovascular risk factors and driver licensing. Consistent with good medical practice, people with diabetes should have their cardiovascular risk factors periodically assessed and treated as required (refer to section 2. Cardiovascular conditions).

3.2.4. Gestational diabetes mellitus

The standards in this chapter apply to diabetes mellitus as a chronic condition. The self-limiting condition known as gestational diabetes mellitus does not affect licensing. However, consideration should be given to short-term fitness to drive in women with gestational diabetes mellitus treated with insulin, although severe hypoglycaemia in this condition is rare. Affected women should be counselled to recognise symptoms and to restrict driving when symptoms occur.

Figure 9. Clarke hypoglycaemia awareness survey[10]

Patient Survey

The survey is useful to administer to assess hypoglycaemia awareness including for people who have been on insulin for many years after a severe hypoglycaemic event following a crash.

Scoring

- Four or more 'R' responses implies reduced awareness.
- For questions 5 and 6, one 'R' response is given if the answer to question 5 is less than the answer to question 6.
- 'A' responses imply awareness.
- 'U' response (12 or more severe hypoglycaemic episodes in the last 12 months) indicates unawareness.

1. Check the category that best describes you: (check one only)

   - ☐ I always have symptoms when my blood sugar is low (A).
   - ☐ I sometimes have symptoms when my blood sugar is low (R).
   - ☐ I no longer have symptoms when my blood sugar is low (R).

2. Have you lost some of the symptoms that used to occur when your blood sugar was low?

   - ☐ Yes (R)
   - ☐ No (A)

3. In the past six months, how often have you had moderate hypoglycaemia episodes? (episodes where you might feel confused, disoriented or lethargic and were unable to treat yourself)

   - ☐ Never (A)
   - ☐ Once a month (R)
   - ☐ Once or twice (R)
   - ☐ More than once a month (R)
   - ☐ Every other month (R)

4. In the past year, how often have you had severe hypoglycaemic episodes? (episodes where you were unconscious or had a seizure and needed glucagon or intravenous glucose)

   - ☐ Never (A)
   - ☐ 1 time (R)
   - ☐ 2 times (R)
   - ☐ 3 times (R)
   - ☐ 5 times (R)
   - ☐ 6 times (R)
   - ☐ 7 times (R)
   - ☐ 8 times (R)
   - ☐ 9 times (R)
   - ☐ 10 times (R)
   - ☐ 11 times (R)
   - ☐ 12 or more times (U)

5. How often in the last month have you had readings less than 3.8 mmol/L with symptoms?

- ☐ Never (A)
- ☐ 1 to 3 times
- ☐ 1 time/week
- ☐ 2 to 3 times/week
- ☐ 4 to 5 times/week
- ☐ Almost daily

6. How often in the last month have you had readings less than 3.8 mmol/L without any symptoms?

- ☐ Never
- ☐ 1 to 3 times
- ☐ 1 time/week
- ☐ 2 to 3 times/week
- ☐ 4 to 5 times/week
- ☐ Almost daily

(R = answer to 5 is less than answer to 6, A = answer to 6 is greater than answer to 5)

7. How low does your blood sugar need to go before you feel symptoms?

- ☐ 3.3–3.8 mmol/L (A)
- ☐ 2.7–3.3 mmol/L (A)
- ☐ 2.2–2.7 mmol/L (R)
- ☐ Less than 2.2 mmol/L (R)

8. To what extent can you tell by your symptoms that your blood sugar is low?

- ☐ Never (R)
- ☐ Rarely (R)
- ☐ Sometimes (R)
- ☐ Often (A)
- ☐ Always (A)

Note: *Units of measure have been converted from mg/dl to mmol/L as per* http://www.onlineconversion.com/blood_sugar.htm

3.3. Medical standards for licensing

Medical requirements for unconditional and conditional licences are outlined in the table on page 101. Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

3.3.1. Diabetes treated by glucose-lowering agents other than insulin for private drivers

Private vehicle drivers treated by glucose-lowering agents other than insulin may generally drive without licence restriction (i.e. on an unconditional licence) but should be required by the driver licensing authority to have five-yearly reviews.

3.3.2. Recommendation and review of conditional licences for commercial vehicle drivers

It is a general requirement that conditional licences for commercial vehicle drivers are issued by the driver licensing authority based on advice from an appropriate medical specialist (endocrinologist or consultant physician specialising in diabetes) and that these drivers are reviewed periodically by the specialist to determine their ongoing fitness to drive (refer to Part A section 4.4. Conditional licences). For commercial drivers receiving insulin treatment, at least three months of blood glucose monitoring records should be reviewed in assessing fitness to drive.

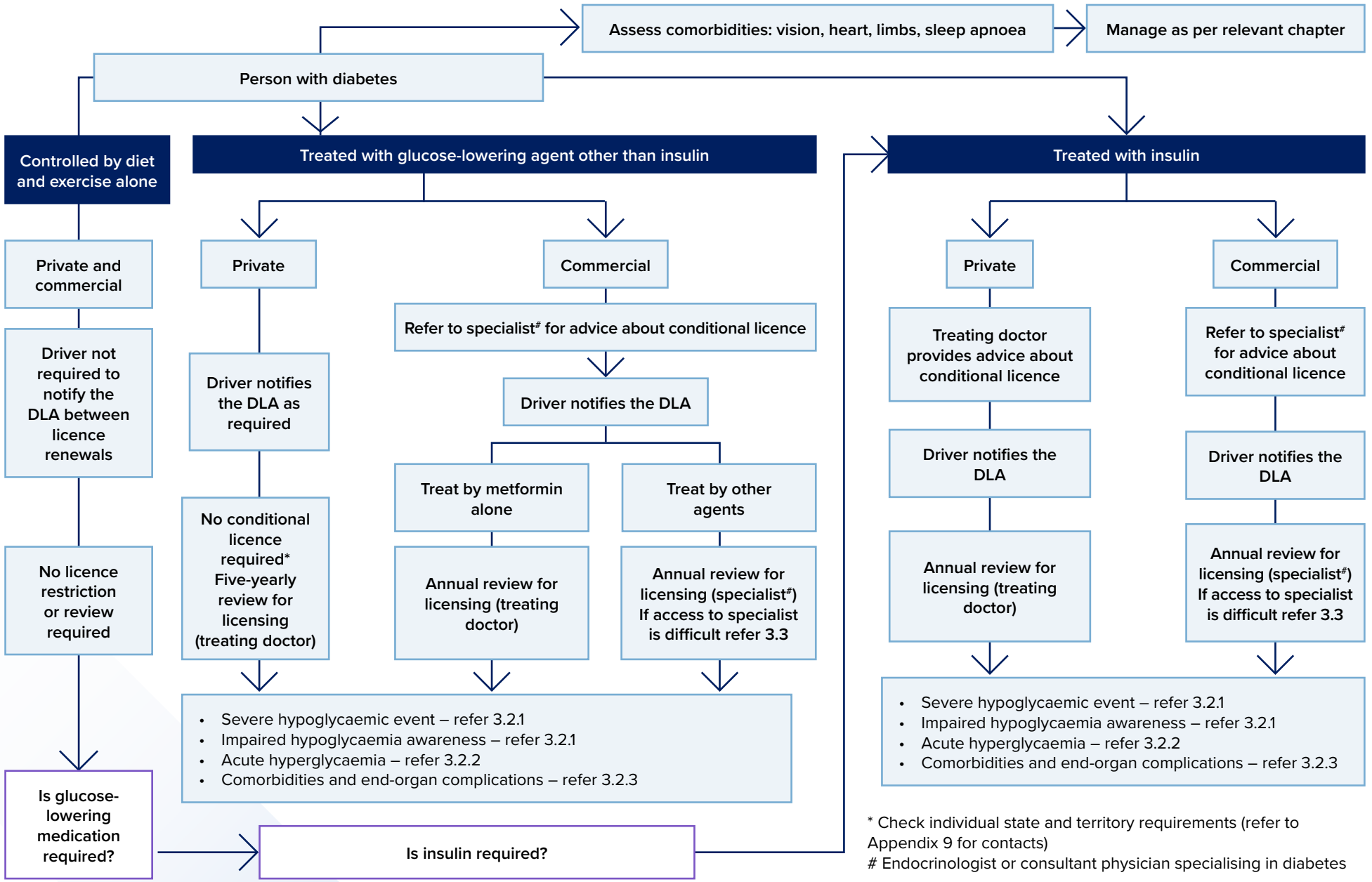
Commercial vehicle drivers treated by glucose-lowering agents other than insulin must have at least an annual review by an appropriate specialist to monitor the progression of their condition. However, in the case of type 2 diabetes managed by metformin alone, ongoing fitness to drive may be assessed by the treating general practitioner by mutual agreement with the specialist. The initial recommendation of a conditional licence must be based on the opinion of an endocrinologist or consultant physician specialising in diabetes.

In areas where access to specialists may be difficult, the driver licensing authority may agree to a process in which:

- initial assessment and advice for the conditional licence is provided by a specialist (endocrinologist or consultant physician specialising in diabetes)
- ongoing periodic review for the conditional licence is provided by the treating general practitioner, with the cooperation of the specialist.

Where appropriate and available, the use of telemedicine technologies such as videoconferencing is encouraged as a means of facilitating access to specialist opinion (refer to Part A section 3.3.5. Role of medical specialists).

Figure 10. Management of diabetes and driving



* Check individual state and territory requirements (refer to Appendix 9 for contacts)
# Endocrinologist or consultant physician specialising in diabetes

Medical standards for licensing – diabetes mellitus Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Diabetes controlled by diet and exercise alone	A person with diabetes treated by diet and exercise alone may drive without licence restriction. They should be reviewed by their treating doctor periodically regarding the progression of their diabetes.	A person with diabetes treated by diet and exercise alone may drive without licence restriction. They should he reviewed by their treating doctor periodically regarding the progression of their diabetes.
Diabetes treated by glucose-lowering agents other than insulin For definition and management of a 'severe hypoglycaemic event' refer to section 3.2.1	A person is **not** fit to hold an **unconditional licence**: • if the person has end-organ complications that may affect driving, as per this publication; or • the person has had a recent 'severe hypoglycaemic event'. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into consideration the nature of the driving task and information provided by the **treating doctor** on whether the following criteria are met: • any end-organ effects are satisfactorily treated, with reference to the standards in this publication; **and** • the person is following a treatment regimen that minimises the risk of hypoglycaemia; **and** • the person experiences early warning symptoms (awareness) of hypoglycaemia or has a documented management plan for lack of early warning symptoms; **and** • any recent 'severe hypoglycaemic event' has been satisfactorily treated, with reference to the standards in this publication (refer to section 3.2.1). For private drivers who do not meet the above criteria, a **conditional licence** may be considered by the driver licensing authority, taking into account the opinion of an **endocrinologist or consultant physician specialising in diabetes** and subject to regular specialist review.	A person is **not** fit to hold an **unconditional licence**: • if the person has non–insulin treated diabetes mellitus and is being treated with glucose-lowering agents other than insulin. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into consideration the nature of the driving task and information provided by an **endocrinologist or consultant physician specialising in diabetes*** on whether the following criteria are met: • there is no recent history of a 'severe hypoglycaemic event' as assessed by the specialist; **and** • the person experiences early warning symptoms (awareness) of hypoglycaemia; **and** • the person is following a treatment regimen that minimises the risk of hypoglycaemia; **and** • there is an absence of end-organ effects that may affect driving as per this publication. ** For a commercial driver with type 2 diabetes who is being treated with metformin alone, the annual review for a conditional licence may be undertaken by the driver's treating doctor upon mutual agreement of the treating doctor, specialist and driver licensing authority. The initial granting of a conditional licence must, however, be based on information provided by the specialist.*

Medical standards for licensing – diabetes mellitus		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Insulin-treated diabetes (except gestational diabetes) For definition and management of a 'severe hypoglycaemic event' refer to section 3.2.1	A person is **not** fit to hold an **unconditional licence**: • if the person has insulin-treated diabetes. A **conditional licence** may be considered by the driver licensing authority subject to at least **2-yearly review**, taking into consideration the nature of the driving task and information provided by the **treating doctor** on whether the following criteria are met: • there is no recent history of a 'severe hypoglycaemic event'; **and** • the person is following a treatment regimen that minimises the risk of hypoglycaemia; **and** • the person experiences early warning symptoms (awareness) of hypoglycaemia (refer to section 3.2.1) or has a documented management plan for lack of early warning symptoms; **and** • there are no end-organ effects that may affect driving as per this publication. For private drivers who do not meet the above criteria, a **conditional licence** may be considered by the driver licensing authority, taking into account the opinion of an **endocrinologist or consultant physician specialising in diabetes** and subject to regular specialist review.	A person is **not** fit to hold an **unconditional licence**: • if the person has insulin-treated diabetes. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into consideration the nature of the driving task and information provided by an **endocrinologist or consultant physician specialising in diabetes** on whether the following criteria are met: • there is no recent history (generally at least **6 weeks**) of a 'severe hypoglycaemic event' as assessed by the specialist; **and** • the person is following a treatment regimen that minimises the risk of hypoglycaemia; **and** • the person experiences early warning symptoms (awareness) of hypoglycaemia (refer to section 3.2.1); **and** • there are no end-organ effects that may affect driving as per this publication.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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4. Hearing loss and deafness

Refer also to Part B section 5. Musculoskeletal conditions *and section* 10. Vision and eye disorders.

This section deals with fitness to drive in relation to hearing loss and deafness. Hearing loss and deafness may be well compensated for when driving by relying on vision, attention and physical mobility to adequately scan the driving environment. Hearing loss and deafness may coexist with other impairments that could compromise these adaptive capabilities, such as visual, mobility and cognitive impairment, particularly in older people. For guidance in assessing multiple medical conditions refer to Part A 2.2.8. Multiple medical conditions.

4.1. Relevance to the driving task

4.1.1. Effect of hearing loss on driving[1–7]

The evidence base regarding hearing loss and driving safely is limited; however, the analysis of the small number of quality studies report that hearing loss has no effect on motor vehicle crash risk.[1] It may be that a loss of hearing is well compensated for since most people who are hard of hearing are aware of their disability and therefore tend to be more cautious and rely more on visual cues and other sensations such as vibrations. Functional hearing is used in the driving task to:

- sense alarms, notifications and other auditory cues in the driving environment (e.g. railway crossings, first responder sirens)
- sense auditory cues on the state and position of the vehicle from vehicle technology systems (e.g. alarms, warning systems using sound alerts)
- compensate for comorbidities or general reduction in functional abilities that may impair driving (e.g. slower reaction times, reduced neck rotation due to musculoskeletal changes)
- assist in maintaining general vigilance, alertness and arousal.

4.1.2. Considerations for commercial vehicle drivers[8,9]

While driving ability per se might not be affected by a hearing loss, responsiveness to critical events is an important safety consideration for drivers of commercial vehicles. These drivers therefore require the capacity to ensure safety and the capacity to respond to environmental situations that may involve sirens, rail crossings and emergency signals as well as conditions of the vehicle and roads. It may be challenging to rely solely on vision to compensate for a significant hearing loss in a commercial vehicle. The internal commercial vehicle cabin can place additional attentional, workload and visual demands on drivers for undertaking tasks such as checking multiple displays or monitors and using communication systems. These additional tasks reduce capacity to compensate for a lack of hearing by relying on vision to monitor the external environment.

4.2. General assessment and management guidelines

4.2.1. Commercial vehicle drivers

Only drivers of commercial vehicles are required to meet a hearing standard for the reasons outlined above. The following hearing assessment applies to all forms of hearing loss including congenital and childhood hearing loss, and hearing loss acquired in later years. The process is summarised in Figure 11. Management of hearing loss in commercial vehicle drivers.

- Compliance with the standard should be clinically assessed initially by the treating doctor, audiologist* or audiometrist**. If there is doubt about the person's hearing, audiometry should be performed by an ear, nose and throat (ENT) specialist, audiologist* or audiometrist**. The person need not undergo audiometry if their hearing is satisfactory.
- If on audiometry the person has unaided hearing loss greater than or equal to 40 dB in the better ear (averaged over the frequencies 0.5, 1, 2 and 3 KHz), they do not meet the criteria for an unconditional licence.
- If the standard is able to be met with a hearing aid, the driver licensing authority may consider a conditional licence, subject to periodic assessment of hearing, the use of the hearing aid whilst driving and of the hearing aids set at a frequency advised by the ENT specialist, audiologist* or audiometrist**. Stable conditions may not require periodic review.
- If the standard is not able to be met with a hearing aid, this does not disqualify the person from driving. They should be offered individualised assessment to determine their eligibility for a conditional licence. This may comprise assessment by an ENT specialist or audiologist* including consideration of:
  - the person's medical history – for example, childhood deafness may have led to good adaptation
  - the person's driving record before and since the hearing loss
  - the nature of the driving task – for example, the type of vehicle (e.g. truck, bus), roads and distances to be travelled
  - the ergonomics of the driving cab – for example, assistive devices such as mirrors and a GPS
  - concomitant medical conditions such as vision impairment or cognitive impairment
  - practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). The report may advise on assistive technologies as a licence condition.

The driver licensing authority may consider a conditional licence based on the information received. Periodic review may include medical review and/or a practical driver assessment at the discretion of the driver licensing authority. The health professional should advise on the frequency of review as determined by the natural history of the condition. Stable conditions may not require periodic review.

In some cases, noise amplification from wearing hearing aids may lead to driver distraction and may warrant individualised assessment as above to determine fitness to drive without the hearing aid.

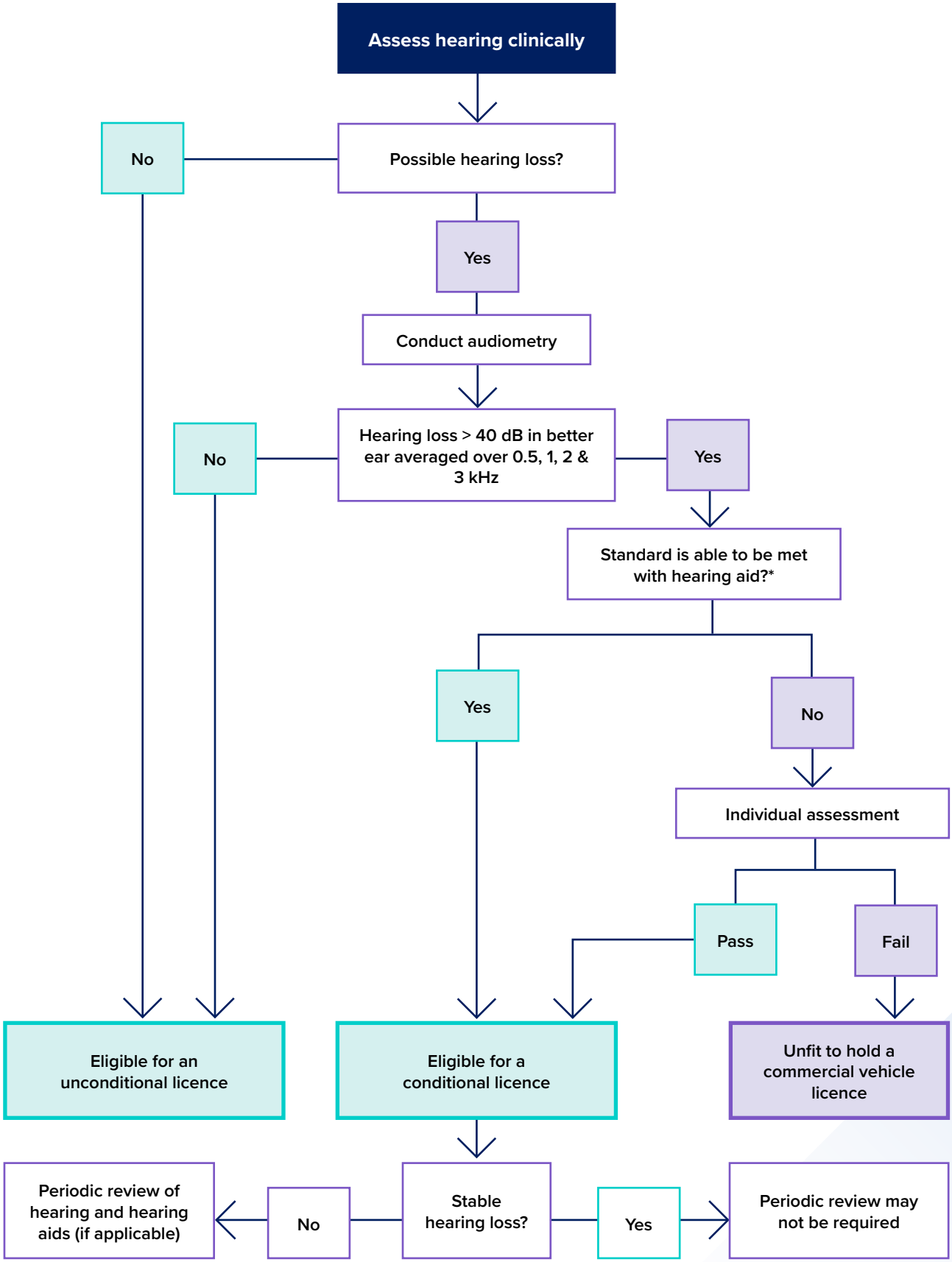
4.2.2. Private vehicle drivers

While hearing loss will not preclude driving a private car, people with hearing loss should be advised regarding their loss and their limited ability to hear warning signals. Assistive technologies such as hearing aids, sensors and/or physical equipment such as additional mirrors might also be used upon consideration of the needs of the individual driver. Occupational therapist driving assessors can assist with identifying vehicle aides.

* For the purposes of this document an audiologist is a person accredited as such by Audiology Australia (refer to www.audiology.asn.au) or the Australian College of Audiology (refer to www.acaud.org).

** For the purposes of this document, an audiometrist is a person accredited as such by the Australian College of Audiology (refer to www.acaud.org) or the Hearing Aid Audiology Society of Australia (refer to www.haasa.org.au).

Figure 11. Management of hearing loss in commercial vehicle drivers



* In some cases noise amplification as a result of wearing hearing aids may lead to driver distraction and may warrant individualised assessment to determine fitness to drive without the hearing aid (refer to section 4.2.1).

4.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table.

Medical standards for licensing – hearing **Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.**		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Hearing loss	There is no hearing standard for private vehicle drivers. Refer to 4.2. General assessment and management guidelines.	Compliance with the standard should be clinically assessed initially. If the initial clinical assessment indicates possible hearing loss, the person should be referred for audiometry. A person is **not** fit to hold an **unconditional licence**: • if the person has unaided hearing loss ≥ 40 dB in the better ear (averaged over the frequencies 0.5, 1, 2 and 3 KHz). A **conditional licence** may be considered by the driver licensing authority subject to **periodic review***, taking into account the nature of the driving task and information provided by an **ENT specialist or audiologist****, as to whether: • the standard is able to be met with a hearing aid***. If the standard is **not** able to be met with a hearing aid, further individualised assessment should be offered. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review***, taking into account: • the nature of the driving task; **and** • information provided by an ENT specialist or audiologist**; **and** • the results of a practical driver assessment if required. ** Stable conditions may not require periodic review.* *** Refer to section 4.2. General assessment and management guidelines.* **** In some cases, noise amplification as a result of wearing hearing aids may lead to driver distraction and may warrant individualised assessment to determine fitness to drive without the hearing aid (refer to 4.2. General assessment and management guidelines).*

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

References and further reading

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5. Musculoskeletal conditions

Refer also to Part A section 2.2.7. Older drivers and age-related changes *and* 2.2.9. Drugs and driving*; Part B section* 6. Neurological conditions *and section* 10. Vision and eye disorders*.*

This section deals with fitness to drive in relation to a variety of musculoskeletal conditions and disabilities that may result in chronic pain, muscle weakness, joint stiffness, sensory loss or loss of limbs. Specific neuromuscular conditions, such as multiple sclerosis, are addressed under section 6. Neurological conditions. Musculoskeletal conditions are also likely to coexist with other impairments, such as visual and cognitive impairment, particularly in older people. For guidance in assessing older drivers and multiple medical conditions refer to Part A section 2.2.7. Older drivers and age-related changes and 2.2.8. Multiple medical conditions).

5.1. Relevance to the driving task

5.1.1. Effects of musculoskeletal conditions on driving

To safely operate a motor a vehicle, drivers must be able to execute and coordinate many complex muscular movements requiring adequate range of movement, sensation, coordination and power of the upper and lower limbs (refer Figure 12):

- The upper limbs are required to steer and to operate gears/transmission and secondary vehicle controls.
- The lower limbs are required to operate the foot controls.
- The ability to rotate the head is important for scanning the environment including when reversing.
- General postural stability and endurance is also required.
- Entering and leaving the vehicle also requires a degree of strength and flexibility.

There is a close link between these requirements and the cognitive and decision-making requirements of the driving task.

Specific requirements will vary depending on the vehicle and the driving task. Commercial vehicles vary considerably in terms of cabin access and design, vehicle controls and ergonomics, and the commercial driving task can be physically demanding in terms of the vehicle operation as well as the duration of driving. The needs of motorcyclists also differ due to the type of controls and the overall driving task, as well as requirements for balance and agility.

Figure 12. General functional requirements for driving motor vehicles (excluding motorcycles)

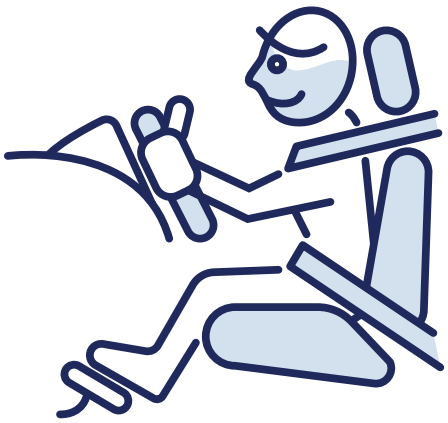
Upper limb(s)

Able to move upper limb(s) with sufficient range of movement, sensation, coordination and power to achieve required movements to:

- operate ignition
- hold and turn steering wheel
- operate secondary vehicle controls consistently (e.g. indicators)
- operate gear lever and hand brake (if needed).

Lower limb(s)

Able to move lower limb/s with sufficient range of movement, sensation, coordination and power to operate foot controls.



Cognitive function

Able to maintain attention, concentration, decision making, responsiveness and insight needed for driving-related tasks.

Neck movements

Able to stabilise head and rotate neck to achieve required movements to:

- turn head to both sides to scan road and view mirrors
- turn head for reversing.

Back movements

Able to maintain posture and move spine so as to support positions of head, upper and lower limbs needed for driving-related tasks.

The features of modern vehicles, such as digital controls, reversing cameras, automatic transmission, power steering and adjustable seats, accommodate a range of impairments. Adaptive equipment can also be installed (e.g. hand-operated controls) that enable many drivers with impairments to operate vehicles safely (refer to Table 6).

Chronic impairment of musculoskeletal functions may arise from numerous disorders and trauma (e.g. amputations, arthritis, ankylosis, deformities and chronic lower back pain). Issues related to muscle tone, spasm, sitting tolerance and endurance, as well as the effects of medications, may also need to be considered (refer to Part A section 2.2.9. Drugs and driving).

Acute and chronic pain associated with musculoskeletal conditions may also impact the cognitive aspects of driving, with evidence that it affects attention and concentration, as well as emotional responses. This is an important consideration for the overall management of drivers with musculoskeletal conditions (refer to section 5.2. General assessment and management guidelines).

It is possible to drive safely with quite severe functional impairment; however, driver insight into functional limitations, stability of the condition and compensatory body movements or vehicle devices to overcome deficits are usually required (refer to section 5.2. General assessment and management guidelines).

5.1.2. Evidence of crash risk[1]

There is limited published data on the risk of a crash or loss of control of a vehicle due to musculoskeletal disorders. While several studies describe driving difficulties experienced by people with physical impairment affecting the musculoskeletal system, the evidence suggests there is only a slightly increased risk of crash associated with these disorders. This may be attributed to the driver's ability to compensate for physical impairments while driving or, as for various other conditions, it may be due to self-limiting of driving by people with these conditions.

5.2. General assessment and management guidelines[2]

5.2.1. Clinical assessment

Given the variability in vehicles and driving tasks, driver assessment should be individualised and based on their defined functional requirements, together with the associated impacts of their condition and treatment.

The clinical assessment aims to identify whether a driver's condition is likely to result in difficulty undertaking the driving task and whether and how they might be supported to drive safely. Several factors need to be considered:

- the person's driving and mobility requirements
- the person's functional capacity relative to the driving task
  - muscle strength
  - flexibility
  - endurance
  - sensory abilities (sensation, proprioception, kinaesthesia)
- the presence of pain that may impede concentration, attention or movement
- the potential impairment from prescription medications balanced against the patient's improvement in function and health more generally
- the likely progression of the condition/disability
- the person's current use of adaptive strategies and equipment, including impacts on functionality and outcomes such as endurance on the driving task
- the impact of comorbidities and age-related change.

5.2.2. Chronic pain associated with musculoskeletal conditions[3]

Assessment and management of chronic pain should consider the functional and cognitive impacts on driving. This includes whether pain or pain treatments (refer to Part A section 2.2.9. Drugs and driving) are likely to affect attention, concentration or decision making, or the person's ability to respond appropriately in the driving environment. The functional and cognitive impacts may fluctuate.

Fitness to drive will depend on the demands of the driving task and whether these can be managed or modified. It will also depend on self-management and compensatory strategies and the driver's insight into the impact of their chronic pain. A practical driver assessment may assist in some cases to evaluate the impact of chronic pain on driving (refer to Part A section 2.3.1. Practical driver assessments).

5.2.3. Functional and practical assessment

In addition to a clinical examination, a functional assessment and/or practical driver assessment may be required to assess functional limitations and identify requirements for vehicle adaptation or personal restrictions (refer to Table 6 for examples).[4,5]

Processes for initiating and conducting driver assessments vary between the states and territories. Practical assessments may be

conducted by occupational therapists or others approved by the driver licensing authority (refer to Part A section 2.3.1. Practical driver assessments). The assessments may be initiated by the examining health professional or by the driver licensing authority. Recommendations following assessment may relate to:

- licence status
- the need for rehabilitation or retraining
- licence conditions such as vehicle modification or personal restrictions
- requirements for reassessment.

If a person installs or upgrades a vehicle modification, reassessment is generally only required if a different class of device will be used. The device classes include:

- hand-operated brake and accelerator lever controls, requiring a steering aid
- hand-operated brake and accelerator controls, maintaining two hands on the steering wheel
- pedal modifications, maintaining operation by the lower limbs (e.g. left foot accelerator, pedal extensions)
- steering aids
- secondary control modifications (e.g. park brake, gear selector).

Information about the options for practical driver assessment in the relevant state or territory can be obtained by contacting the local driver licensing authority (Appendix 9. Driver licensing authority contacts). For information about occupational therapists qualified in driver assessment, contact Occupational Therapy Australia (refer to Appendix 9. Driver licensing authority contacts).

In the case of a driver seeking a conditional commercial vehicle licence, the person will have to initially demonstrate proficiency in driving a light vehicle (car) before being assessed in a commercial vehicle. For the commercial vehicle licence, an on-road driver assessment will need to be undertaken in the commercial vehicle and with modifications if required. This assessment should be conducted as required by the driver licensing authority.

Motorcyclists with a musculoskeletal disability will require a practical driver assessment (refer to Part A section 2.3.1. Practical driver assessments).

Table 6. Examples of vehicle modifications and personal restrictions relevant to musculoskeletal disorders*

Example of disability/situation	Examples of licence conditions (vehicle modification or personal restrictions)
Left leg disability	Automatic transmission
Left arm disability	Automatic transmission and steering aid
Short stature	Built-up seat and pedals
Loss of leg function	Hand-operated controls
Loss of right leg function	Left foot accelerator
Reduced upper limb strength	Power steering only
Short leg(s)	Extended pedals
Loss of limb function or limb-deficient	Prosthesis required

** These are not mandatory requirements and may be unsuitable in some circumstances.*

5.2.4. Congenital or non-progressive conditions

Drivers who have conditions of a non-progressive nature (e.g. congenital loss or incapacity of a limb) require a medical assessment for the first issue of a licence. Periodic review is not usually required if the condition is static and there are no comorbidities impacting on fitness to drive.

5.2.5. Use of prosthetic devices

Prosthetic devices are an alternative to vehicle modification and may be suitable for people who are learning to drive or returning to driving after a significant injury. These devices should be recommended by an occupational therapist specialising in the area, with confirmation that:

- the prosthesis manufacturer has not specified that the prosthesis is unsuitable for driving
- the person has demonstrated:
  - the ability to drive safely while using the prosthesis, including maintaining uninterrupted observation of the road (i.e. not needing to visually check the prosthesis' position)
  - adequate strength and endurance to maintain prosthetic use while driving
- the therapist has assessed appropriate sensation (superficial and proprioception) in the stump and remaining limb
- the therapist has confidence in the fit of the prosthesis
- the prosthesis-vehicle control interfaces have been evaluated and addressed (e.g. upper limb prostheses may require a suitably designed steering aid if used to maintain steering control).

Periodic review may not be required where the driver's health is stable and there are no other medical conditions that may impair driving.

5.2.6. Short-term musculoskeletal conditions

People with severe musculoskeletal pain and/or reduced mobility associated with short-term conditions such as injury or surgery should be advised not to drive for the duration of their treatment. Return to driving should be determined by the treating doctor and is not a licensing issue. Considerations include the impact of pharmacological treatments (refer to Part A section 2.2.9. Drugs and driving) and non-pharmacological treatments such as soft collars or braces.

Some loss of neck movement is allowable if the vehicle is fitted with adequate internal and externally mounted mirrors or cameras, and provided the driver meets the visual standards for driving and has no cognitive or insight limitations that might affect adopting compensatory strategies.

The opinion of an occupational therapy driver assessor may be obtained if there is ongoing limitation of function.

Guidance for managing short-term conditions is included in Part A section 2.2.3. Temporary conditions.

5.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table.

Medical standards for licensing – musculoskeletal conditions

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Musculoskeletal disorders (including chronic pain, muscle weakness, arthritis)	A person is **not** fit to hold an **unconditional licence**: • if the driver's ability to perform the required driving activities (refer to section 5.2.1. Clinical assessment and Figure 12) is inadequate. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account: • the nature of the driving task; **and** • information provided by the treating doctor on: – the stability of the condition; **and** – the benefit of treatments, prostheses or other devices (see footnote below); **or** – medications that may impair capacity for safe driving (refer to Part A section 2.2.9. Drugs and driving) • a practical driver assessment if required*; **and** • any modification to the vehicle. ** Motorcyclists with a musculoskeletal disability will require a practical driver assessment (refer to Part A section 2.3.1. Practical driver assessments).*	A person is **not** fit to hold an **unconditional licence**: • if the driver's ability to perform the required driving activities (refer to section 5.2.1. Clinical assessment and Figure 12) is inadequate. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account: • the nature of the driving task; **and** • information provided by the treating doctor on: – the stability of the condition; **and** – the benefit of treatments, prostheses or other devices (see footnote below); **or** – medications that may impair capacity for safe driving (refer to Part A section 2.2.9. Drugs and driving) • the results of a practical driver assessment*; **and** • any modification to the vehicle. ** All commercial vehicle drivers with a musculoskeletal disability will require a practical driver assessment (refer to Part A section 2.3.1. Practical driver assessments).*

Note: The evaluation of the effectiveness of prostheses and the specification of appropriate modifications to vehicle controls is a specialist area. It is recommended that the person be referred to an occupational therapist specialising in the area and that the report from that professional be made available to the driver licensing authority (refer to Appendix 10. Specialist driver assessors).

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

References and further reading

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6. Neurological conditions

Safe driving is a demanding task that requires a number of intact neurological functions including:

- visuospatial perception
- insight
- judgement
- attention and concentration
- comprehension
- reaction time
- memory
- sensation
- muscle power (refer to section 5. Musculoskeletal conditions)
- coordination
- vision (refer to section 10. Vision and eye disorders).

Impairment of any of these capacities may be caused by neurological disorders and therefore affect safe driving ability. In addition to these deficits, some neurological conditions produce seizures.

This chapter provides guidance and medical criteria for the following conditions:

- dementia (refer to section 6.1)
- seizures and epilepsy (refer to section 6.2)
- other neurological conditions including (refer to section 6.3):
  - aneurysms
  - cerebral palsy
  - head injury
  - neuromuscular conditions
  - Parkinson's disease
  - multiple sclerosis
  - Ménière's disease
  - stroke
  - transient ischaemic attacks
  - subarachnoid haemorrhage
  - space-occupying lesions including brain tumours
  - other neurodevelopmental conditions.

The focus of this chapter is on long-term or progressive disorders affecting driving ability and licensing status. Some guidance (advisory only) is provided regarding short-term fitness to drive – for example, following a head injury. Refer also to Part A section 2.2.3. Temporary conditions.

Where people experience musculoskeletal, visual or psychological symptoms, the relevant standards should also be considered. Refer to section 5. Musculoskeletal conditions, section 7. Psychiatric conditions and section 10. Vision and eye disorders.

6.1. Dementia

Refer also to Part A section 2.2.7. Older drivers and age-related changes *and section* 2.2.8. Multiple medical conditions*.*

Dementia is a syndrome due to a disease of the brain, usually of a chronic or progressive nature, in which there is disturbance of one or more cognitive functions beyond what might be expected from normal ageing. It can affect memory, thinking, orientation, comprehension, calculation, learning capacity, language and judgement. Consciousness is not clouded. The impairments are commonly accompanied, and occasionally preceded, by deterioration in emotional control, social behaviour or motivation.

Disease pathology without cognitive impairment can be seen in preclinical dementia, while a slight but noticeable decline in some cognitive functions may indicate mild cognitive impairment (MCI) or prodromal dementia. Alzheimer's disease is the most common form of dementia and may contribute to 60–70 per cent of cases. Other major forms include vascular dementia, dementia with Lewy bodies, and a group of diseases that contribute to frontotemporal dementia.

The estimated proportion of the general population aged 60 or older with dementia at a given time is between 5 and 8 per cent. Although age is the strongest known risk factor for dementia, it is not an inevitable consequence of ageing. Further, dementia does not exclusively affect older people – young-onset dementia (defined as the onset of symptoms before the age of 65 years) accounts for up to 9 per cent of cases.

6.1.1. Relevance to the driving task

Effects of dementia on driving[1]

Dementia is characterised by significant loss of cognitive abilities such as memory capacity, psychomotor abilities, attention, visuospatial functions, insight and executive functions.

Dementia may affect driving ability in several ways including:

- errors with navigation, including forgetting routes and getting lost in familiar surroundings
- limited concentration or 'gaps' in attention, such as failing to see or respond to 'stop' signs
- errors in judgement, including misjudging the distance between cars and misjudging the speed of other cars
- confusion when making choices – for example, difficulty choosing between the accelerator or brake pedals in stressful situations
- poor decision making or problem solving, including failure to give way appropriately at intersections and inappropriate stopping in traffic
- poor insight and denial of deficits
- slowed reaction time, including failure to respond in a timely fashion to instructions from passengers
- poor hand–eye coordination.

Other causes of fluctuating cognitive impairment or delirium, such as hepatic, renal or respiratory failure, do not usually have an impact on licence status and may be managed in the short term according to general principles (refer to Part A section 2. Assessing fitness to drive – general guidance).

Evidence of crash risk[2,3]

Dementia syndrome and symptoms are associated with a moderately high risk of collision compared with matched controls. However, the evidence does not suggest that all people with dementia symptoms should have their licences revoked or restricted. Throughout all stages of their condition, drivers require regular monitoring regarding progression of the disease. While for some drivers the crash risk is minimised because they choose, or are persuaded by their family, to voluntarily cease driving, others with significant cognitive decline and limited insight may require careful management and support in this regard, as discussed below.

6.1.2. General assessment and management guidelines

Preclinical dementia[4]

Preclinical dementia is increasingly being identified using modern diagnostic techniques. The dementia-related pathology is diagnosed in advance of the clinical manifestations of dementia itself, including symptoms that impair driving (e.g. preclinical Alzheimer's disease). A person diagnosed in this manner, who has no clinically significant symptoms of dementia, can be considered fit to drive. Health professional review may be appropriate to monitor disease progression and development of dementia symptoms.

Mild cognitive impairment[5–7]

MCI, which incorporates the prodromal stage of dementia, causes a slight but measurable decline in cognitive abilities. The cognitive changes are noticeable to the person and to family members and friends but generally do not affect the person's ability to carry out everyday activities. Driving studies examining the effects of MCI found limited evidence of increased driving error rates, concluding that MCI does not significantly impair driving. Where there is impairment across multiple cognitive domains such as visuospatial, attention and executive functions, it may be appropriate to consider the driver's fitness to drive and perform an assessment as outlined below.

Dementia assessment[8]

Due to the progressive and irreversible nature of the condition, people with a diagnosis of dementia will eventually be a risk to themselves and others when driving. The level of impairment varies widely – each person will experience a different pattern and timing of impairment as their condition progresses, and some people may not need to stop driving immediately. Individual assessment and regular review are therefore important, although it is difficult to predict the point at which a person will no longer be safe to drive.

A combination of medical assessment (including specialist assessment as required) and off-road and on-road practical assessments appears to give the best indication of driving ability. For further information about practical driver assessments refer to Part A section 2.3.1. Practical driver assessments.

The following points may assist in assessing a person:

- **Driving history.** Have they been involved in any driving incidents? Have they been referred for assessment by the police or a driver licensing authority?
- **Vision.** Can they see things coming straight at them or from the sides? (refer to section 10. Vision and eye disorders)
- **Hearing.** Can they hear the sound of approaching cars, car horns and sirens?
- **Reaction time.** Can they turn, stop or speed up their car quickly?

- **Problem solving.** Do they become upset and confused when more than one thing happens at the same time?
- **Coordination.** Have they become clumsy and started to walk differently because their coordination is affected?
- **Praxis.** Do they have difficulty using their hands and feet when asked to follow motor instructions?
- **Alertness and perception.** Are they aware and understand what is happening around them? Do they experience hallucinations or delusions?
- **Insight.** Are they aware of the effects of their dementia? Is there denial?
- **Other aspects of driving performance.**
  - Can they tell the difference between left and right?
  - Do they become anxious or confused on familiar routes?
  - Can they comprehend road signs?
  - Can they respond to verbal instructions?
  - Do they understand the difference between 'stop' and 'go' lights?
  - Are they able to stay in the correct lane?
  - Can they read a road map and follow detour routes?
  - Has their mood changed when driving? (Some previously calm drivers may become anxious, panicked, angry or aggressive.)
  - Are they confident when driving?

Because of the lack of insight and variable memory abilities associated with most dementia syndromes, the person may minimise or deny any difficulties with driving. Relatives may be a useful source of information regarding overall coping and driving skills. They may comment about the occurrence of minor crashes, or whether they are happy to be driven by the person with dementia. Referral for a practical driving assessment may be warranted where sufficient concern or uncertainty remains regarding the degree of impact of the cognitive impairments (refer to Part A section 2.3.1. Practical driver assessments).

Transition from driving

Licence restrictions, such as limitation of driving within a certain distance from a driver's home, may be considered by the driver licensing authority (refer to section 6.1.3. Medical standards for licensing). Community mobility assessment and planning with reference to cessation of driving may include family support, accessing local public transport or using community buses, and providing information about taxi and other community transport services available for people with disabilities. A number of resources are available to support the transition. Specific information resources are available from Dementia Australia for drivers with dementia and their family/carers.

Failure to comply with advice or licence restriction

People may continue to drive despite being advised they are unsafe, and despite their licence being restricted or revoked. This may be because of denial, memory loss or loss of insight. Discussions with the person's family/carers may be helpful, and alternative transportation can be explored. Where the person is judged to be an imminent threat to safety, all states and territories provide indemnity for health professionals and other members of the public who notify the driver licensing authority of at-risk drivers; the driver licensing authority will then take the necessary steps.

6.1.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table. Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Due to the progressive nature of dementia and the need for frequent review, a person diagnosed with this condition may not hold an unconditional licence for either a private or commercial vehicle. Private vehicle drivers may be considered for a conditional licence subject to medical opinion and practical assessment as required. The practical assessment is generally appropriate for borderline cases where the impact on driving is unclear. Commercial vehicle drivers require specialist assessment including a practical driver assessment (refer to Part A section 2.3.1. Practical driver assessments).

One option available to maintain a driver's independence despite a reduction in capacity is to recommend that an area restriction be placed on the licence. This effectively limits where the person can drive and is most expressed as a kilometre radius restriction based on their home address. Drivers should be capable of managing usual driving demands (e.g. negotiating intersections, giving way to pedestrians) as required in their local area. These licence conditions are only suitable for drivers who can reasonably be expected to understand and remember the limits as well as reliably compensate for any functional declines.

The ability to respond appropriately and in a timely manner to unexpected occurrences such as roadworks or detours that require problem solving should also be considered. People lacking insight or with significant visual, memory or cognitive-perceptual impairments are therefore usually not suitable candidates for a radius restriction. When advising such a restriction it is also important to remember the following:

- A driver may not always appreciate the meaning or extent of a specified number of kilometres from home.
- Potential hazards such as pedestrians, intersections, roadworks, bad weather and detours can still exist in familiar streets close to home and can be a source of confusion.
- A driver licence is a legal document that demonstrates that a driver has satisfied the driver licensing authority that they are fit to use the road system as it exists – this means they must be competent to deal with unexpected and hazardous situations, even when limited to driving close to home.
- Restrictions to specified routes are not practicable and should not be advised.

Drivers with a diagnosis of dementia will generally not meet the commercial standards. In some situations a conditional licence may be considered by the driver licensing authority subject to careful assessment by an appropriate specialist. Commercial vehicle drivers must also be subject to a practical driver assessment (refer to Part A section 2.3.1. Practical driver assessments).

Medical standards for licensing – dementia and other cognitive impairment Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Dementia	A person is **not** fit to hold an **unconditional licence**: • if the person has a diagnosis of dementia*. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time or memory and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). The opinion of an appropriate specialist may also be considered. ** This does not include preclinical or prodromal/MCI stages of the disease unless impairments are present as described in section 6.1.2. General assessment and management guidelines.*	A person is **not** fit to hold an **unconditional licence**: • if the person has a diagnosis of dementia*. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time or memory and the likely impact on driving ability; **and** • the results of a practical driver assessment**. ** This does not include preclinical or prodromal/MCI stages of the disease unless impairments are present as described in section 6.1.2. General assessment and management guidelines.* *** All commercial vehicle drivers will require a practical driver assessment (refer to Part A section 2.3.1. Practical driver assessments).*

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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6.2. Seizures and epilepsy

Refer also to section 1. Blackouts *and section* 2. Cardiovascular conditions*.*

6.2.1. Relevance to the driving task

Effects of seizures on driving[1–3]

Seizures vary considerably, some being purely subjective experiences – for example, some focal seizures – but most involve some impairment of consciousness (e.g. absence and focal impaired awareness seizures) or loss of voluntary control of the limbs (e.g. focal motor and focal impaired awareness seizures). Convulsive (tonic–clonic) seizures may be generalised from onset or have a focal onset. Seizures associated with loss of awareness, even if brief or subtle, or loss of motor control, have the potential to impair the ability to control a motor vehicle.

Evidence of crash risk[4–6]

Most studies have reported an elevated crash risk among drivers with epilepsy, but the size of the risk varies considerably across the studies. These studies have found that people with epilepsy are twice as likely to be involved in a motor vehicle crash compared with the general driving population. More recent studies have found that drivers who do not take antiseizure medication as prescribed are at an increased risk for experiencing a crash.

6.2.2. General assessment and management guideline[7,8]

Epilepsy refers to the tendency to experience recurrent seizures. Not all people who experience a seizure have epilepsy.

Epilepsy is a common disorder with a cumulative incidence of 2 per cent of the population, with 0.5 per cent affected and taking medication at any one time. Most cases respond well to treatment, with a terminal remission rate of 80 per cent or more. The majority suffer few seizures in a lifetime, and about half will have no further seizures in the first one or two years after starting treatment. Some people with epilepsy may eventually cease medication. For others, surgery may be beneficial.

In general, responsible people with well-managed epilepsy (as demonstrated by an appropriate seizure-free period and compliance with treatment and other recommendations) may be considered by the driver licensing authority to be fit to drive a private vehicle. Conditional licences rely on individual responsibility for management of the condition, including compliance with treatment, in conjunction with the support of a health professional and regular review.

Commercial vehicle driving exposes the driver and the public to a relatively greater risk because of the increased time spent at the wheel, as well as the generally greater potential for injury from motor vehicle crashes due to the greater size or weight of commercial vehicles, or large numbers of passengers carried. For this reason, the acceptable risk of a seizure-related crash for commercial driving is much less, and the requirements applied are much stricter; in addition, sleep deprivation is a common provoking factor in epilepsy and may be experienced in long-distance transport driving and amongst drivers doing shift work.

It is good medical practice for any person with initial seizures to be referred to a specialist, where available, for accurate diagnosis of the specific epilepsy syndrome so that appropriate treatment is instituted and all the risks associated with epilepsy, including driving, can be explained.

With regard to licensing, the treating doctor or general practitioner may liaise with the driver licensing authority about whether the criteria are met for driving a private vehicle, but only a specialist may do so for a commercial vehicle driver.

Use of electroencephalograms (EEG)[9,10]

Electroencephalography is an important tool in diagnosing epilepsy. In people who have had one or more seizures, it has a limited but valuable role in predicting seizure recurrence. It may also be used to identify subtle episodes in which awareness may be impaired. Because there is a wide range of clinical situations, with varying utility of EEG, it does not form part of the driving standards except for the initial fitness assessment of commercial drivers. When epileptiform abnormalities that may represent subtle seizures (e.g. generalised spike-wave bursts lasting longer than three seconds, or photoparoxysmal response) are found on the EEG of those who meet the standard to hold a conditional (or unconditional) licence, their fitness should be assessed on a case-by-case basis. This may require more detailed testing.

Advice to licence holders

All licence holders should be advised of the following general principles for safety when driving:

- The person must continue to take antiseizure medication regularly as recommended.
- The person should ensure they get adequate sleep and not drive when sleep-deprived.
- The person should avoid circumstances, or the use of substances (e.g. excessive alcohol), that are known to increase the risk of seizures.

It is good medical practice for any person with epilepsy to be reviewed periodically. Patients who are licence holders should also be monitored regarding their response to treatment and compliance with the general advice for safety when driving. Drivers of private vehicles who hold a conditional licence should be reviewed at least annually by their treating doctor (unless experiencing an extended seizure-free period – see The default standard on page 130). Commercial vehicle drivers should be reviewed at least annually by a specialist regarding any conditional licence that has been issued.

Refusal of medical advice

Some people with epilepsy choose not to follow medical advice, including the taking of antiseizure medicine and avoidance (where possible) of factors that may provoke seizures. If a patient refuses to follow a treating doctor's recommendation, the patient should be assessed as not fit to drive. The treating doctor may consider reporting this information to the driver licensing authority so it can be considered in the event that another doctor certifies the person as fit to drive without therapy. Further guidance on managing patients who refuse to follow medical advice can be found in Part A section 3.3.1. Confidentiality, privacy and reporting to the driver licensing authority. Refer also to *Medication noncompliance* and *Uncertain or unreliable history* in this section.

Concurrent conditions

Where epilepsy is associated with other impairments or conditions, the relevant sections covering those disorders should also be consulted.

Other conditions with risk of seizure

Seizures can occur in association with many brain disorders. Some of these disorders may also impair safe driving because of an associated neurological deficit. Both the occurrence of seizures, as well as the effect of any neurological deficit, must be taken into account when determining fitness to drive. Managing acute symptomatic seizures caused by a transient brain disorder or a metabolic disturbance (e.g. encephalitis, hyponatraemia, head injury or drug or alcohol withdrawal) is covered on page 141. Refer also to section 6.3. Other neurological and neurodevelopmental conditions for seizures associated with a head injury and intracranial surgery.

Loss of consciousness due to other causes

In cases where it is not possible to be certain that loss of consciousness is due to a seizure or some other cause, refer to section 1.2.4. Blackouts of undetermined mechanism.

6.2.3. Medical standards for licensing

Given the considerable variation in seizures and their potential impact on safe driving, a hierarchy of standards has been developed that provides a logical and fair basis for decision making regarding licensing (see also Figure 13. Overview of management of a driver with seizures). This hierarchy comprises:

- a default standard, applicable to all cases of seizure, unless reductions are allowed (refer below and to the table on page 138)
- reductions for specific types of epilepsy or specific circumstances, including an allowance for exceptional circumstances upon the advice of a specialist in epilepsy (refer below and to the table on page 139).

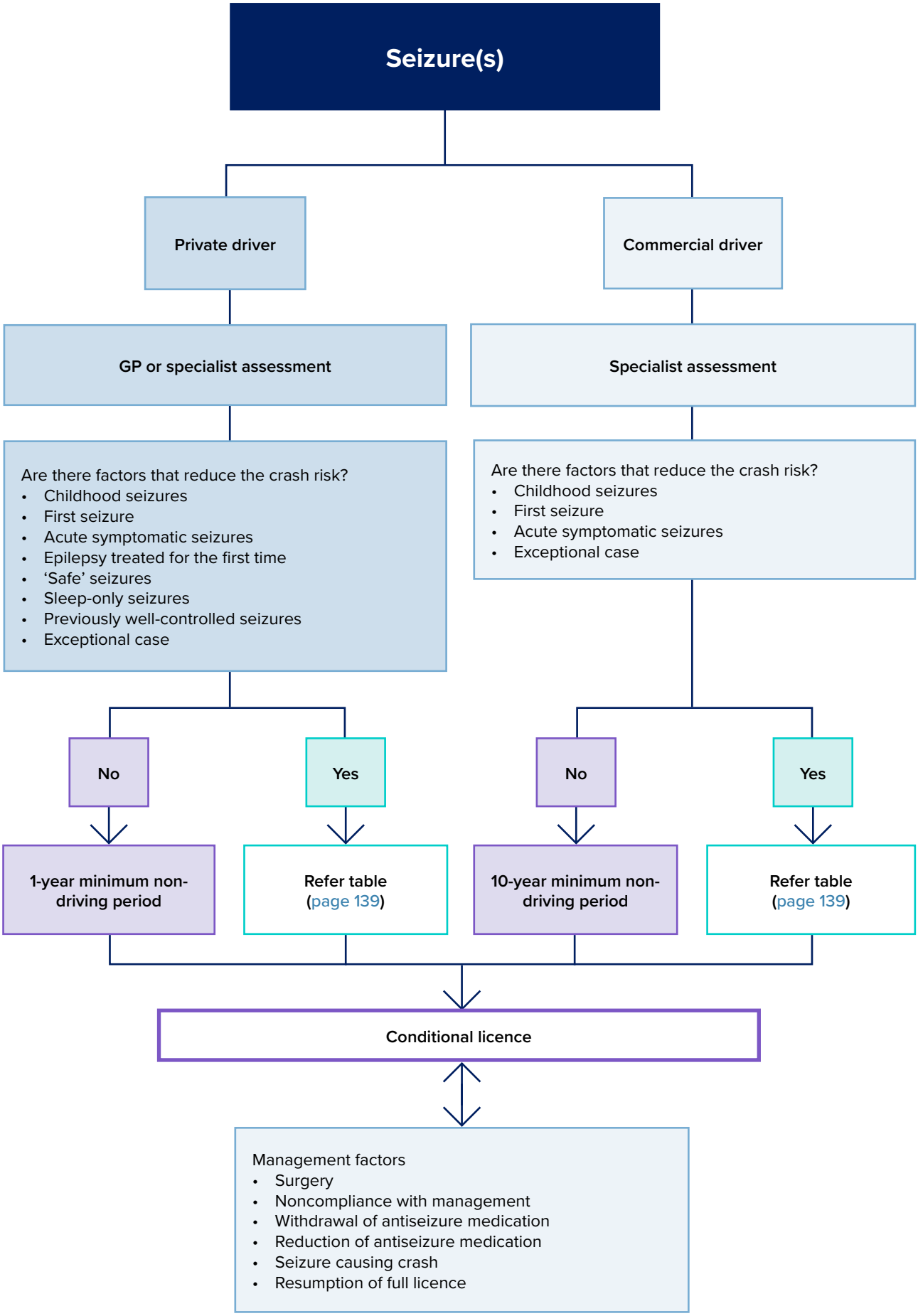
In addition, advice is provided on a number of difficult management issues relating to safe driving for people with seizures and epilepsy (refer below and to the table on page 146).

The default standard (all cases)

The ‘default standard’ is the standard that applies to all drivers who have had a seizure unless their situation matches one of a number of defined situations listed in the table and described below. These situations are associated with a lower risk of a seizure-related crash and therefore driving may be resumed after a shorter period of seizure freedom than required under the default standard. However, the need to adhere to medical advice and at least annual review still apply. If a seizure has caused a crash within the preceding 12 months, the required period of seizure freedom may not be reduced below that required under the default standard. If antiseizure medication is to be withdrawn, the person should not drive (refer to table for details).

If a driver who is taking antiseizure medication has experienced an extended seizure-free period (more than 10 years for private drivers, and more than 20 years for commercial drivers) the driver licensing authority may consider reduced review requirements (at least once every three years) based on advice from the treating doctor or specialist.

Figure 13. Overview of management of a driver with seizures



Variations to the default standard

There are several situations in which a variation from the default standard may be considered by the driver licensing authority to allow an earlier return to driving. These are listed below and discussed on subsequent pages:

- seizures in childhood
- first seizure
- epilepsy treated for the first time
- acute symptomatic seizures
- 'safe' seizures
- seizures only in sleep
- seizures in a person previously well controlled
- exceptional circumstances.

In most cases, exceptions to the default standard will be considered only for private vehicle drivers. A reduction in restrictions for commercial vehicle drivers will generally only be granted after considering information provided by a specialist with expertise in epilepsy.

If a person has experienced a crash as a result of a seizure, the default non-driving seizure-free period applies, even if the situation matches one of those above.

In addition to the reduction for particular circumstances or seizure types, there is also an allowance for **'exceptional cases'** in which a conditional licence may be considered for private or commercial vehicle drivers on the recommendation of a medical specialist with specific expertise in epilepsy. This enables individualisation of licensing for cases where the person does not meet the standard but may be safe to drive.

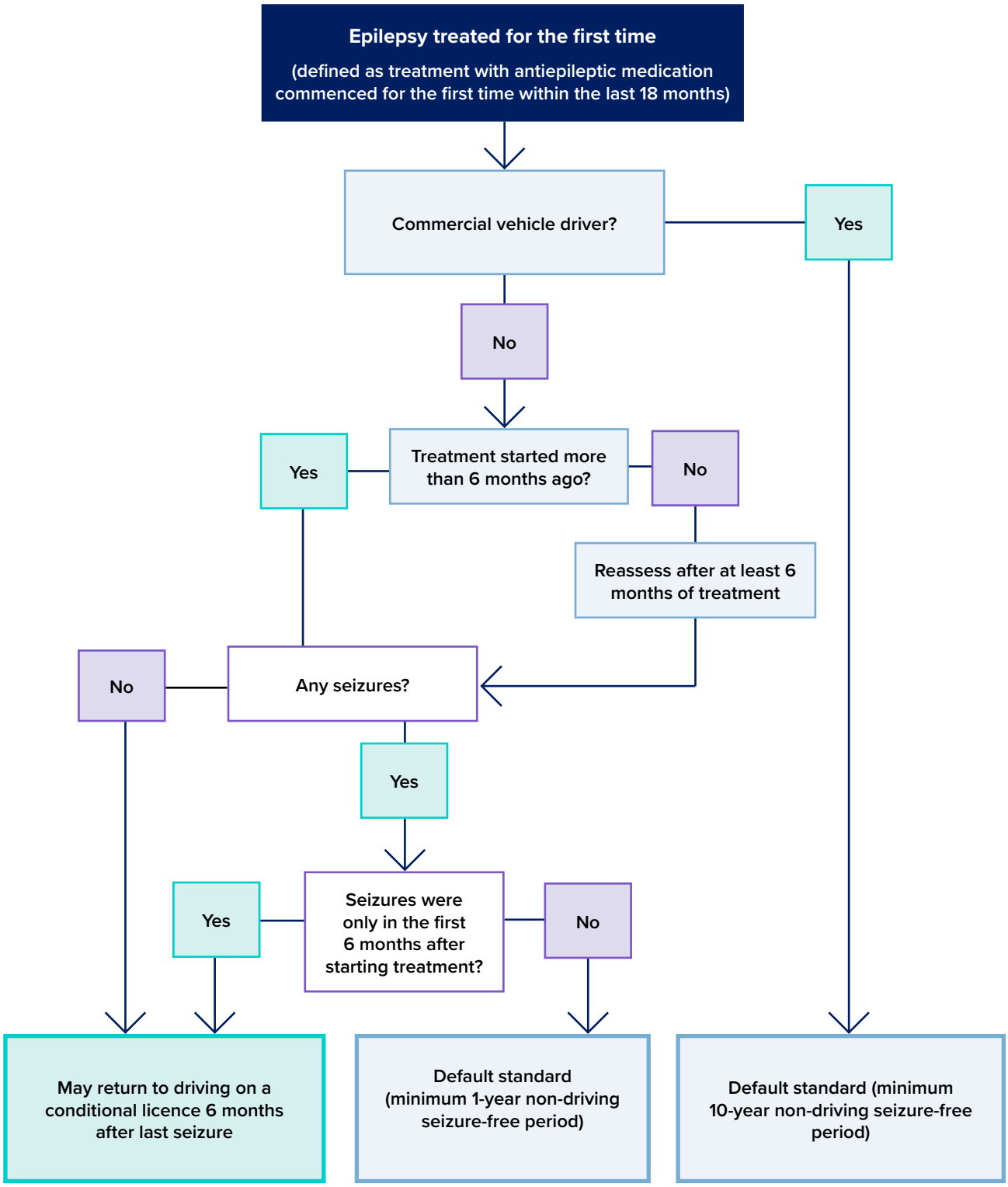
Licensing of drivers with a history of childhood febrile seizures or benign epilepsy syndrome of childhood

In some specific childhood epilepsy syndromes, seizures usually cease before the minimum age of driving. The driver may hold an unconditional licence if no seizures have occurred after the age of 11 years. If a seizure has occurred after 11 years of age, the default standard applies unless the situation matches one of those in this section (*Variations to the default standard*).

The first seizure (of any type)[11–13]

The occurrence of a first seizure warrants medical specialist assessment, where available. Approximately half of all people experiencing their first seizure will never have another seizure, while half will have further seizures (i.e. epilepsy). The risk of recurrence falls with time. Driving may be resumed after sufficient time has passed without further seizures (with or without medication) to allow the risk to reach an acceptably low level (refer to the table on page 139). If a second seizure occurs (except on the same day as the first), the risk of recurrence is much higher. The standard for *Epilepsy treated for the first time* will then apply (refer to page 139 and to Figure 14).

Figure 14. Epilepsy treated for the first time



Epilepsy treated for the first time[14,15]

The risk of recurrent seizures in people starting treatment for epilepsy is sufficiently low to allow driving to resume earlier than required under the default standard. For the purpose of these standards, epilepsy treated for the first time means that treatment was started for the first time within the preceding 18 months.

When treatment with an antiseizure drug is started in a previously untreated person, enough time should pass to establish that the drug is effective before driving is recommenced. However, effectiveness cannot be established until the person reaches an appropriate dose. For example, if a drug is being gradually introduced over three weeks and a seizure occurs in the second week, it would be premature to declare the drug ineffective. The standard allows seizures to occur within the first six months after starting treatment without lengthening the required seizure-free period. However, if seizures occur more than six months after starting therapy, a longer seizure-free period is required (refer to table for details). For commercial drivers, the default standard applies.

For example, if a patient has a seizure three months after starting therapy, they may be fit to drive six months after the most recent seizure (nine months after starting therapy). However, if a person experiences a seizure eight months after starting therapy, the default standard applies and they may not be fit to drive until 12 months after the most recent seizure.

If the patient has received no treatment in the last five years or more, resumption of treatment is managed as if treated for the first time (as above).

Acute symptomatic seizures[16,17]

Acute symptomatic seizures are caused by a transient brain disorder or metabolic disturbance (e.g. encephalitis, hyponatraemia, head injury or drug or alcohol withdrawal) in patients without previous epilepsy. Acute symptomatic seizures can be followed by further seizures weeks, months or years after the transient brain disorder resolves. This may occur because of permanent changes to the brain caused by the process underlying the acute symptomatic seizures (e.g. seizures may return years after a resolved episode of encephalitis) or because the transient brain disorder has recurred (e.g. benzodiazepine withdrawal).

People who have experienced a seizure only during and because of a transient brain disorder or metabolic disturbance should not drive for a sufficient period to allow the risk of recurrence to fall to an acceptably low level (refer to table for details). Return to driving for commercial vehicle drivers requires input from an epilepsy specialist. The risk of seizure recurrence varies greatly, depending on the cause.

If seizures occur after the causative acute illness has resolved, whether or not due to a second transient brain disorder or metabolic disturbance, the acute symptomatic seizures standard no longer applies. For example, if a person has a seizure during an episode of encephalitis and then, after recovering from the encephalitis, has another seizure and begins treatment, the standard for epilepsy treated for the first time applies. Similarly, if a person experiences seizures during two separate episodes of benzodiazepine withdrawal, the default standard applies.

The management of late post-traumatic epilepsy is discussed in section 6.3.1. under *Head injury.*

'Safe' seizures (including prolonged aura)

Some seizures do not impair consciousness or the ability to control a motor vehicle; however, this must be well established without exceptions and corroborated by reliable witnesses or video-EEG recording because people may believe their consciousness is unimpaired when it is not. For example, some 'auras' are associated with impaired consciousness that the person does not perceive. Isolated infrequent myoclonic jerks (without impaired awareness) may be

considered safe in the context of no seizures of any other type for more than 12 months.

For private vehicle drivers, where seizures occur only at a particular time of day (e.g. in the first hour after waking), a conditional licence, which limits driving to certain hours or circumstances, may be acceptable. This applies only to private vehicle drivers.

Seizures may begin with a subjective sensation (the 'aura') that precedes impairment of consciousness. If this lasts long enough, the driver may have time to stop the vehicle. However, this can only be relied upon when this pattern has been well established without exceptions and corroborated by witnesses or video-EEG monitoring. Furthermore, it may be impossible to stop immediately and safely because of traffic conditions. Even if the person is able to stop the vehicle before the seizure, they may then be in a confused state and not appreciate the danger of resuming their journey. For these reasons, such seizures can be considered safe only in exceptional circumstances and must be considered by the driver licensing authority on a case-by-case basis. See *Exceptional cases* in the text and table.

Any seizures that involve confusion/vagueness, automatisms, difficulty speaking or emotional features or memory loss are not considered safe seizures.

Sleep-only seizures

Some seizures occur only during sleep and hence are not a hazard to driving. In people who have never had a seizure while awake but who have an established pattern of seizures exclusively during sleep, the risk of subsequent seizures while awake is sufficiently low to allow private driving, despite continuing seizures while asleep. In people with an established pattern of sleep-only seizures but a history of previous seizures while awake, the risk of further seizures while awake is higher. Therefore, a longer period of sleep-only seizures is required before driving by this group than in those who have never had a seizure while awake. This applies only to private vehicle drivers.

Seizure in a person whose epilepsy has been previously 'well controlled'

Where a single seizure occurs after a long period (defined in these standards as at least 12 months) without seizures, the risk of further seizures is sufficiently low that driving can be resumed after a shorter period than when the epilepsy has not been as well controlled. The duration of the non-driving seizure-free period depends on whether a provoking factor was identified and can be reliably avoided (refer below). This applies only to private vehicle drivers who are already under treatment.

In people with epilepsy, their seizures are often provoked by factors such as missed doses of antiseizure medication, over-the-counter medications, alcohol or acute illnesses. If the provoking factor is avoided, the risk of subsequent seizures may be sufficiently low to allow private driving to resume after a shorter seizure-free period than following an unprovoked seizure. However, this applies only if the epilepsy has been well controlled until the provoked seizure (refer to previous point). Some provocative factors (e.g. sleep deprivation), unless severe, cannot be reliably avoided.

For the purpose of these standards, sleep deprivation is not considered a provoking factor. Refer also to *Medication noncompliance* on the next page.

Exceptional cases

Where a medical specialist who is experienced in managing epilepsy considers that a person with seizures or epilepsy does not meet the standards for a conditional licence but nonetheless may be safe to drive, a conditional licence may be considered if the driver licensing authority, after considering clinical information provided by the treating medical specialist,

considers that the risk of a crash caused by a seizure is acceptably low.

Other factors that may influence licensing status

Several other factors may influence the management of epilepsy in regard to driving and licensing. These include:

- epilepsy treated by surgery
- medication noncompliance
- uncertain or unreliable history
- cessation of antiseizure medication
- a seizure causing a crash
- resumption of an unconditional licence.

These issues are discussed below and criteria are outlined in the table on page 146.

Epilepsy treated by surgery

Resection of epileptogenic brain tissue may eliminate seizures completely, allowing safe driving after a suitable seizure-free period. The vision standard may also apply if there is a residual visual field defect. If medication is withdrawn, refer to *Withdrawal or dose reduction of one or more antiseizure medications* opposite.

Medication noncompliance

Compliance with medical advice regarding medication intake is a requirement for conditional licensing. Where the treating doctor suspects noncompliance, they may recommend to the driver licensing authority that the licence be granted on the condition that periodic drug-level monitoring is conducted. Where a person without a history of noncompliance with medication experiences a seizure because of a missed dose and there were no seizures in the 12 months leading up to that seizure, the situation can be considered a provoked seizure (refer to the standard for *Seizure in a person whose epilepsy has been previously well controlled* above).

Uncertain or unreliable history

Some people with epilepsy are unable to reliably report the occurrence of seizures because their awareness is impaired by their seizure. Some others deliberately fail to report seizures. In both situations, the person may report that no seizures have occurred, when, in fact, they have, and the person is unfit to drive. Corroboration by people in regular contact with the person may decrease any uncertainty. Where uncertainty remains, the driver licensing authority can be informed (refer to Part A section 3.3.1. Confidentiality, privacy and reporting to the driver licensing authority).

Withdrawal or dose reduction of one or more antiseizure medications

In people who have had no seizures while taking antiseizure medication over a suitable period, the specialist may attempt a withdrawal of all antiseizure medication, a reduction in the number of medications or a reduction in dose. The medication may also be changed because of side effects or potential side effects (e.g. teratogenicity). The person should not drive for the full period of withdrawal or dose change and for three months thereafter. However, if the dose is being reduced only because of current dose-related side effects and is unlikely to result in a seizure, driving may continue. The person will already be on a conditional licence, therefore notifying the driver licensing authority is not required. Patients who do not adhere to the prescribed dose should be reminded that compliance is a condition of their licence.

For commercial vehicle drivers, if antiseizure medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence. This also applies to a reduction in dose of antiseizure medication except if the dose reduction is due only to the presence of dose-related side effects (refer to page 146). Driving may continue despite withdrawal of antiseizure medication only after consideration by the driver licensing authority under the *Exceptional cases*

standard (e.g. where antiepileptic therapy has been started in a patient without seizures).

Seizure causing a crash or loss of control of a vehicle

Not all seizures carry the same risk of causing a crash or lack of control of a vehicle. People who have lost control of a vehicle as a result of a seizure are likely to have a higher crash risk. If a person who has lost control of a vehicle or experienced a crash due to a seizure, the default seizure-free non-driving period applies, even if they fall into one of the categories that allow a reduction.

Psychogenic nonepileptic seizures

Some transient episodes of impaired consciousness, awareness, or motor control resemble epileptic seizures or syncope, yet have a psychological cause. These episodes are usually termed psychogenic nonepileptic seizures (PNES), although they are sometimes known as dissociative, functional or pseudoseizures. Refer to section 7.2.9. Psychogenic nonepileptic seizures.

Resumption of an unconditional licence

Where a person has had no seizures for at least five years and has taken **no** antiseizure medication for at least the preceding 12 months, the driver licensing authority may consider granting an unconditional licence. This does not apply to commercial vehicle drivers.

The resumption of an unconditional private or commercial licence may be considered in some instances of first seizure or acute symptomatic seizures – refer to these entries in the table).

Medical standards for licensing – seizures and epilepsy

Requirements for unconditional and conditional licences are outlined in the following table.

Step 1: Read 'All cases'. This applies to all people with seizures.

Step 2: Look through the list of situations in the left-hand column of the *Possible reductions in the non-driving seizure-free periods for a conditional licence* table to see if the person matches one of these situations.

Step 3. Look through the left-hand column of the *Other factors that may influence licence status* table to see if the person matches one of these situations.

Depending on the situation, the driver licensing authority may consider a conditional licence after a shorter (reduced) seizure-free period.

Note

People are not eligible for a reduction if they have had a motor vehicle crash or lost control of a vehicle due to a seizure.
If withdrawal of all antiseizure medication is planned, refer to the relevant section of the table.
The longer non-driving period applies if the situation is covered by more than one standard.

All cases: default standard

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
All cases (default standard) Applies to all people who have experienced a seizure. Exceptions may be considered only if the situation matches one of those listed in the tables that follow.	A person cannot hold an **unconditional licence**: • if the person has experienced a seizure. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review***, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • there have been no seizures for at least **12 months****; **and** • the person follows medical advice, including adherence to medication if prescribed or recommended. ** If a driver undergoing treatment for epilepsy has experienced an extended seizure-free period (more than 10 years) the driver licensing authority may consider reduced review requirements based on independent specialist advice (refer to section 3.3.7. Role of independent experts/panels).* *** Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the tables that follow.*	A person cannot hold an **unconditional licence**: • if the person has experienced a seizure. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review***, taking into account information provided by a **specialist in epilepsy** as to whether the following criteria are met: • there have been no seizures for at least **10 years****; **and** • an EEG conducted in the last 6 months has shown no epileptiform activity and no other EEG conducted in the last 12 months has shown epileptiform activity*****; **and** • the person follows medical advice, including adherence to medication if prescribed or recommended. ** If a driver undergoing treatment for epilepsy has experienced an extended seizure-free period (more than 20 years) the driver licensing authority may consider reduced review requirements based on independent specialist advice (refer to section 3.3.7. Role of independent experts/panels).* *** Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the tables that follow.* **** This is only required for initial granting of the conditional licence and not for annual review.*

Possible reductions in the non-driving seizure-free periods for a conditional licence

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
History of a benign seizure or epilepsy syndrome usually limited to childhood (e.g. febrile seizures, benign focal epilepsy, childhood absence epilepsy)	A history of a benign seizure or epilepsy syndrome usually limited to childhood does not disqualify the person from holding an **unconditional licence**, as long as there have been no seizures after 11 years of age. If a seizure has occurred after 11 years of age, the default standard (refer above) applies unless the situation matches one of those listed below.	A history of a benign seizure or epilepsy syndrome usually limited to childhood does not disqualify the person from holding an **unconditional licence**, as long as there have been no seizures after 11 years of age. If a seizure has occurred after 11 years of age, the default standard (refer above) applies unless the situation matches one of those listed below.
First seizure (of any type) The person must report their condition to the driver licensing authority. Note: Two or more seizures in a 24-period are considered a single seizure.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criterion is met: • there have been no further seizures (with or without medication) for at least **6 months**. Resumption of an **unconditional licence** may be considered by the driver licensing authority, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • antiseizure medication has not been prescribed in the past 12 months; **and** • there have been no seizures for at least **2 years**.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by a **specialist in epilepsy** as to whether the following criteria are met: • there have been no seizures for at least **5 years** (with or without medication); **and** • an EEG conducted in the last **6 months** has shown no epileptiform activity and no other EEG conducted in the last **12 months** has shown epileptiform activity*. Resumption of an **unconditional licence** may be considered by the driver licensing authority, taking into account information provided by a **specialist in epilepsy** as to whether the following criteria are met: • antiseizure medication has not been prescribed in the past 12 months; **and** • there have been no seizures for at least **10 years; and** • an EEG conducted in the last **6 months** has shown no epileptiform activity and no other EEG conducted in the last 12 months has shown epileptiform activity. ** This is only required for initial granting of the conditional licence and not for annual review.*

Possible reductions in the non-driving seizure-free periods for a conditional licence		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Epilepsy treated for the first time This applies when antiepileptic treatment has been started for the first time within the preceding 18 months. See Figure 14. Epilepsy treated for the first time.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • the person has been treated for at least **6 months**; **and** • there have been no seizures in the preceding **6 months**; **and** • if any seizures occurred after the start of treatment, they happened only in the first **6 months** after starting treatment and not in the last **6 months**; **and** • the person follows medical advice, including adherence to medication.	There is no reduction. The default standard applies.

Possible reductions in the non-driving seizure-free periods for a conditional licence		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Acute symptomatic seizures Seizures occurring only during a temporary brain disorder or metabolic disturbance in a person without previous seizures. This includes head injuries and withdrawal from drugs or alcohol. This is not the same as provoked seizures in a person with epilepsy.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criterion is met: • there have been no further seizures for at least **6 months**. If there have been two or more separate transient disorders causing acute symptomatic seizures, the default standard applies. Resumption of an **unconditional licence** may be considered by the driver licensing authority, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • antiseizure medication has not been prescribed in the past **12 months**; **and** • there have been no seizures for at least **2 years**.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by a **specialist in epilepsy** as to whether the following criteria are met: • there have been no further seizures for at least **12 months**; **and** • an EEG conducted in the last **6 months** has shown no epileptiform activity and no other EEG conducted in the last 12 months has shown epileptiform activity*. If there have been two or more separate transient disorders causing acute symptomatic seizures, the default standard applies. Resumption of an **unconditional licence** may be considered by the driver licensing authority, taking into account information provided by a **specialist in epilepsy** as to whether the following criteria are met: • antiseizure medication has not been prescribed in the past **12 months**; **and** • there have been no seizures for at least **10 years**; **and** • an EEG conducted in the last **6 months** has shown no epileptiform activity and no other EEG conducted in the last **12 months** has shown epileptiform activity. ** This is only required for initial granting of the conditional licence and not for annual review.*

Possible reductions in the non-driving seizure-free periods for a conditional licence		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
'Safe' seizures These are defined as seizures that do not impair driving ability (see text page 134). Normal responsiveness must have been tested by reliable witnesses or during video EEG. Isolated infrequent myoclonic jerks (without impaired awareness) may be considered safe in the context of no seizures of any other type for more than 12 months.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • 'safe' seizures have been present for at least **2 years**; **and** • there have been no seizures of other type for at least **2 years**; **and** • the person follows medical advice, including adherence to medication if prescribed. If the above criteria are not met, the default standard applies.	There is no reduction. The default standard applies.

Possible reductions in the non-driving seizure-free periods for a conditional licence		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Sleep-only seizures (seizures occurring only during sleep)	A **conditional licence** may be considered by the driver licensing authority, despite continuing seizures only during sleep and subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • there have been no previous seizures while awake; **and** • the first sleep-only seizure was at least **12 months** ago; **and** • the person follows medical advice, including adherence to medication if prescribed; **or** • there have been previous seizures while awake but not in the preceding **2 years**; **and** • sleep-only seizures have been occurring for at least **2 years**; **and** • the person follows medical advice, including adherence to medication if prescribed. If the above criteria are not met, the default standard applies.	There is no reduction. The default standard applies.

Possible reductions in the non-driving seizure-free periods for a conditional licence		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Seizures in a person under treatment whose epilepsy was previously well controlled 'Well controlled' is defined as: there were no seizures during the 12 months leading up to the last seizure.	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • the seizure was caused by an identified provoking factor*; **and** • the provoking factor can be reliably avoided; **and** • the provoking factor has not caused previous seizures; **and** • there have been no seizures for at least **4 weeks**; **and** • the person follows medical advice, including adherence to medication (periodic serum drug-level measurements may be required) and avoidance of provoking factors; **or** • no cause for the seizure was identified; **and** • there have been no seizures for at least **3 months**; **and** • the person follows medical advice, including adherence to medication. If the person has experienced one or more seizures during the 12 months leading up to the last seizure, there is no reduction and the default standard applies. ** Sleep deprivation is not considered a provoking factor for the purpose of the standards.*	There is no reduction. The default standard applies.

Possible reductions in the non-driving seizure-free periods for a conditional licence		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Exceptional cases	Where a **medical specialist** experienced in managing epilepsy considers that a person with seizures or epilepsy does not meet the standards above for a **conditional licence** but may be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least **annual review**: • if the driver licensing authority, after considering information provided by a specialist experienced in managing epilepsy, considers that the risk of a crash caused by a seizure is acceptably low; **and** • if the person follows medical advice, including adherence to medication if prescribed or recommended.	Where a **specialist in epilepsy** considers that a person with seizures or epilepsy does not meet the standards above for a **conditional licence** but may be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least **annual review**: • if the driver licensing authority, after considering information provided by a specialist experienced in managing epilepsy, considers that the risk of a crash caused by a seizure is acceptably low; **and** • if the person follows medical advice, including adherence to medication if prescribed or recommended.

Other factors that may influence licence status

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Epilepsy treated by surgery (where the primary goal of surgery is the elimination of epilepsy)	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criterion is met: • there have been no seizures for at least **12 months** following surgery; **and** • the person follows medical advice with respect to medication adherence. The vision standard may also apply if there is a visual field defect. If medication is withdrawn, refer to *Planned withdrawal of all antiseizure medication below.*	A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by a **specialist in epilepsy** as to whether the following criteria are met: • there have been no seizures for at least **10 years**; **and** • an EEG conducted in the last **6 months** has shown no epileptiform activity and no other EEG conducted in the last **12 months** has shown epileptiform activity*; **and** • the person follows medical advice with respect to medication adherence. The vision standard may also apply if there is a visual field defect. If any antiseizure medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence. ** This is only required for initial granting of the conditional licence and not for annual review.*
Refusal of medical advice or medication noncompliance	Refer to the text on page 129 and page 136.	Refer to the text on page 129 and page 136.
Unreliable or doubtful clinical information	If the **treating doctor** doubts the reliability of the relevant clinical information (e.g. unreported seizures, likely due to the person not recognising the occurrence of seizures or deliberately not reporting seizures), the person is **not fit to drive.** Refer to page 136.	If the **specialist in epilepsy** doubts the reliability of the relevant clinical information (e.g. unreported seizures, likely due to the person not recognising the occurrence of seizures or deliberately not reporting seizures), the person is **not fit to drive**. Refer to page 136

Other factors that may influence licence status		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Planned withdrawal of antiseizure medication in a person who satisfies the standard to hold a conditional licence	The person should not drive: • during the period in which the dose is being tapered; **and** • for **3 months** after the last dose*. If seizures recur, the driver licensing authority may allow the person to resume driving on a **conditional licence** subject to at least **annual review**, taking into account information provided by the treating doctor as to whether the following criteria are met: • the previously effective medication regimen is resumed; **and** • there have been no seizures for **4 weeks** after resuming the medication regimen; **and** • the person follows medical advice, including adherence to medication. If seizures do not recur, the person may become eligible for an unconditional licence (refer to *Resumption of unconditional licence* below). ** If a drug is being withdrawn as part of a switch from one drug to another (e.g. to reduce teratogenic risk), the 3-month non-driving period still applies.*	If antiseizure medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence. Driving may continue only after consideration by the driver licensing authority under the *Exceptional cases* standard page 135.

Other factors that may influence licence status		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Recommended reduction in dosage of antiseizure medication in a person who satisfies the standard to hold a conditional licence	Driving may continue: • if the dose reduction is due only to the presence of current dose-related side effects and is unlikely to affect seizure control; **or** • if the dose is being reduced after an increase due to a temporary situation that has now resolved (e.g. pregnancy) to the dose that was effective before the increase. In circumstances other than above, the person should not drive: • during the period in which the dose reduction is being made; **and** • for **3 months** after completing the dose reduction. If seizures recur, the driver licensing authority may allow the person to resume driving on a **conditional licence** subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • the previously effective medication dose is resumed; **and** • there have been no seizures for **4 weeks** after resuming the previously effective dose; **and** • the person follows medical advice, including adherence to medication.	Driving may continue: • if the dose reduction is due only to the presence of current dose-related side effects and is unlikely to result in a seizure; **or** • if the dose is being reduced after an increase due to a temporary situation that has now resolved (e.g. pregnancy) to the dose that was effective before the increase. In circumstances other than the above, the person will no longer meet the criteria to hold a conditional licence.
Seizure causing a crash	If a person has experienced a crash or has lost control of the vehicle as a result of a seizure, the default seizure-free non-driving period applies, even if they fall into one of the seizure categories that allow a reduction.	If a person has experienced a crash or has lost control of the vehicle as a result of a seizure, the default seizure-free non-driving period applies, even if they fall into one of the seizure categories that allow a reduction.
Psychogenic nonepileptic seizures	Refer to section 7.2.9. Psychogenic nonepileptic seizures.	Refer to section 7.2.9. Psychogenic nonepileptic seizures.

Other factors that may influence licence status		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Resumption of unconditional licence	Unless outlined in the possible reductions above (see first seizure or acute symptomatic seizure), the driver licensing authority may consider granting an **unconditional licence**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • the person has had no seizures for at least **5 years**; **and** • the person has taken no antiseizure medication for at least the preceding **12 months**.	Unless outlined in the possible reductions above (see first seizure or acute symptomatic seizure), resumption of an unconditional commercial licence will not be considered. Refer to the text on page 137.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

References and further reading

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6.3. Other neurological and neurodevelopmental conditions

6.3.1. General assessment and management guidelines[1]

People with neurological conditions should be examined to determine the impact on the functions required for safe driving as listed below. If the health professional is concerned about a person's ability to drive safely, the person may be referred for a driver assessment or for appropriate allied health assessment (Box 3) (refer also to Appendix 10. Specialist driver assessors).

Box 3. Checklist for neurological disorders

If the answer is YES to any of the following questions, the person may be unfit to drive and warrants further assessment.

1. Are there significant impairments of any of the following?
- Visuospatial perception
- Insight
- Judgement
- Attention and concentration
- Comprehension
- Reaction time
- Memory
- Sensation
- Muscle power
- Coordination

2. Are the visual fields abnormal? (refer to section 10. Vision and eye disorders)

3. Have there been one or more seizures? (refer to section 6.2. Seizures and epilepsy)

Some neurological conditions are progressive, while others are static. In the case of static conditions in those who are fit to drive, the requirement for periodic review may be waived.

Aneurysms (unruptured intracranial aneurysms and other vascular malformations)

The risk of sudden severe haemorrhage from most unruptured intracranial aneurysms and vascular malformations is low enough to allow unrestricted driving for private vehicle drivers. However, the person should not drive if they are at high risk of sudden symptomatic haemorrhage (e.g. giant [> 15 mm] aneurysms). Cavernomas frequently produce small asymptomatic haemorrhages that do not impair driving ability. However, if they produce a neurological deficit, the person should be assessed to determine if any of the functions listed above are impaired. Commercial vehicle drivers should be individually assessed for suitability for a conditional licence.

If treated surgically, the advice regarding intracranial surgery applies (refer below). If the person has had a seizure, the seizures and epilepsy standards also apply (refer to section 6.2. Seizures and epilepsy).

Cerebral palsy

Cerebral palsy may impair driving ability because of difficulty with motor control or if it is associated with intellectual impairment. A practical driver assessment may be required (refer to Part A section 2.3.1. Practical driver assessments). As the disorder is usually static, periodic review is not normally required.

Head injury[2–6]

A head injury will only affect driver licensing if it results in chronic impairment or seizures. However, any person who has had a traumatic injury causing loss of consciousness should not drive for a minimum of 24 hours, and the effects on functions listed above should be monitored. This is advisory and not a licensing matter.

Minor head injuries involving a loss of consciousness of less than one minute with no complications do not usually result in any long-term impairment. Similarly, immediate seizures that occur within 24 hours of a head injury are not considered to be epilepsy but part of the acute process.

More significant head injuries may impair any of the neurological functions listed in Box 3 and can impair long-term driving ability. There may be focal neurological injury affecting motor or sensory tracts as well as the cranial nerves. Also, personality or behavioural changes may affect judgement and tolerance and be associated with a psychiatric disorder such as depression or post-traumatic stress disorder. Clinical, neuropsychological or practical driver assessments may be helpful in determining fitness to drive (refer to Part A section 2.3.1. Practical driver assessments).

Comorbidities such as drug or alcohol misuse and musculoskeletal injuries may also need to be considered (refer to section 9. Substance misuse and section 5. Musculoskeletal conditions).

Neurological recovery from a traumatic brain injury may occur over a long period, and some people who are initially unfit may recover sufficiently over many months such that driving can eventually be resumed.

Risk of post-traumatic epilepsy

People with depressed skull fractures, traumatic intracranial haematoma or severe traumatic brain injury are at increased risk of epilepsy, especially in the first year. Commercial drivers therefore should not drive for 12 months after the injury and require a conditional licence. Private driving may continue, provided the person otherwise meets the standard to drive (refer to *Head injury* in table). If one or more seizures have occurred, the symptomatic seizures standard applies. Post-traumatic epilepsy should be distinguished from immediate post-traumatic (acute symptomatic) seizures occurring within 24 hours of a head injury, which are considered part of the acute process (refer to *Acute symptomatic seizures*, page 134).

Intracranial surgery (advisory only; non-driving periods may be varied by the neurosurgeon)

Non-driving periods are advised to allow for the risk of seizures occurring after certain types of intracranial surgery. Following supratentorial surgery or surgery requiring retraction of the cerebral hemispheres, the person generally should not drive a private vehicle for six months or a commercial vehicle for 12 months. Notification to the driver licensing authority is not required. There is no specific restriction after infratentorial or trans-sphenoidal surgery.

If one or more seizures occur, the standards for seizures and epilepsy apply (refer to section

6.2. Seizures and epilepsy), and the driver should notify the driver licensing authority. Similarly, if there is long-term impairment of any of the functions listed in Box 3, fitness to drive will need to be assessed (refer to section 6.3. Other neurological and neurodevelopmental conditions).

Ménière's disease

Ménière's disease may be accompanied by acute vertigo, which can affect driving. However, attacks are usually accompanied by a prodrome of fullness in the ear, which gives sufficient warning to cease driving. Drivers, particularly commercial vehicle drivers, warrant individual assessment by an ENT specialist regarding their ability to respond in a timely manner to an attack. Such commercial drivers need also to meet the hearing standard (refer to section 4. Hearing loss and deafness).

Multiple sclerosis[7]

Multiple sclerosis may produce a wide range of neurological deficits that may be temporary or permanent. Possible deficits that may impair safe driving include all of those listed in Box 3. Disease-modifying therapies are available that can slow or halt the progression of disability with long periods of stability without impairment for safe driving. Vehicle modifications may assist with some of the listed impairments; the advice of an occupational therapist may be helpful in this regard (refer to Part A section 2.3.1. Practical driver assessments).

Neuromuscular disorders

Neuromuscular disorders include diseases of the peripheral nerves, muscles or neuromuscular junction. Peripheral neuropathy may impair driving due to difficulties with sensation (particularly proprioception) or from severe weakness. Disorders of the muscles or neuromuscular junction may also interfere with the ability to control a vehicle. A practical driver assessment may be required (refer to Part A section 2.3.1. Practical driver assessments).

Parkinson's disease[8–10]

Parkinson's disease is a common, progressive disease that may affect driving in advanced stages[2] due to its motor manifestations (bradykinesia and rigidity) or cognitive impairments (deficits in executive function and memory and visuospatial difficulties).[3] There may also be disturbances of sleep, with episodes of sleepiness when driving. When assessing the response to treatment, the response over the whole dose cycle should be taken into account (e.g. in patients with motor fluctuations, it would not be appropriate to assesses fitness to drive only on the basis of the best 'on' response). Most patients with severe fluctuations will be unfit to drive. A practical driver assessment may be required (refer to Part A section 2.3.1. Practical driver assessments).

Stroke (cerebral infarction or intracerebral haemorrhage)[11–13]

Stroke may impair driving ability either because of the long-term neurological deficit it produces or because of the risk of a recurrent stroke or transient ischaemic attack (TIA) at the wheel of a vehicle (refer over the page).

Stroke and TIA rarely produce loss of consciousness; it is very uncommon for undiagnosed strokes or TIAs to result in motor vehicle crashes. When they do, it is usually due to an unrecognised visual field deficit.

It is common for a person to experience fatigue and impairments in concentration and attention after a stroke, even in those with no persisting neurological deficits. These effects are normally temporary. The effects may temporarily impair the ability to perform the driving task, particularly for commercial vehicle drivers. For this reason,

a minimum non-driving period applies to all drivers after a stroke (at least four weeks for private drivers and at least three months for commercial drivers).

Functionally significant symptoms or neurological deficits that are persistent after a stroke can affect activities of daily living including driving. For drivers with these deficits, subsequent driving fitness will depend on the extent of impairment of the functions listed in Box 3 and the likely impact on driving ability. A practical driver assessment may be required (refer to Part A section 2.3.1. Practical driver assessments). While many people with mild stroke are independent in many activities of daily living, they may have ongoing aphasia (comprehension of written and spoken language), which may impact on their fitness to drive. The musculoskeletal and vision standards may also apply (refer to sections 5. Musculoskeletal conditions and 10. Vision and eye disorders). If the person has had a seizure, the seizures and epilepsy standards also apply (refer to section 6.2. Seizures and epilepsy).

Private drivers without significant impairment (with respect to driving) of the functions listed in Box 3, may resume driving after the non-driving period without further medical review or licence restrictions. This also applies to patients assessed and discharged early from specialist care within the four weeks following a stroke, either as an inpatient or outpatient. If the person requires post-stroke rehabilitation their functional deficits may indicate impacts on driving capacity. Documentation of the assessment should be provided at discharge, which includes details of the driver's licence, indicate that they have not suffered any permanent neurological deficits that will impact driving, and that they are fit to drive at the end of the non-driving period.

Some private drivers may require a conditional licence depending on the nature of the impairment. Conditions on the licence can include requirements for vehicle modifications, local area driving only, no night driving, or no freeway driving (refer to Part A section 4.4. Conditional licences). Periodic review is not normally required as these impairments are usually static. Reference should be made to the review requirements if musculoskeletal, vision or seizure standards apply (refer to sections 5. Musculoskeletal conditions, 10. Vision and eye disorders and 6.2. Seizures and epilepsy).

If symptoms or deficits improve, the driver licensing authority may consider removing the requirement for licence conditions (refer to Part A section 4.5. Reinstatement of licences or removal or variation of licence conditions).

Treatable causes of stroke (e.g. high blood pressure, atrial fibrillation or carotid stenosis) should be managed with reference to this standard. Patients should be encouraged to comply with stroke prevention therapy.

Transient ischaemic attack (advisory)[11,12,14]

TIAs can be single or recurrent and may be followed by a stroke. Included under this definition are patients who may have minor infarction on neuroimaging but who have fully resolved symptoms and a normal neurological examination within a 24-hour period. TIAs may impair driving ability if they occur at the wheel of a motor vehicle. However, because a TIA almost never produces loss of consciousness, it is an extremely uncommon cause of crashes. The risk of a subsequent stroke with modern medical therapy is about 5 per cent in the first year and about half of that risk occurs in the first week. In view of the low risk of a TIA or stroke affecting driving, private vehicle drivers should not drive for two weeks, and commercial vehicle drivers should not drive for four weeks after a TIA. A conditional licence is not required because there is no long-term impairment (refer to Part A section 2.2.3. Temporary conditions).

Subarachnoid haemorrhage

Driving should be restricted if the person has had a subarachnoid haemorrhage. Aneurysmal subarachnoid haemorrhage has a high chance of associated neurological injury and high rates of post-subarachnoid haemorrhage seizures. For such patients, a conditional licence may be considered after a minimum three-month non-driving period for private vehicle drivers and after at least six months for commercial vehicle drivers, taking into account the presence of neurological disabilities as described in Box 3. The vision standard may apply (refer to section 10. Vision and eye disorders). If the person has had one or more seizures, the seizures and epilepsy standards also apply (refer to section 6.2. Seizures and epilepsy). If a craniotomy has been performed, the advice for intracranial surgery also applies (refer to page 153). A practical driver assessment may be considered (refer to Part A section 2.3.1. Practical driver assessments).

Minor non-aneurysmal subarachnoid haemorrhage restricted to the cerebral convexity is associated with a range of underlying neurovascular conditions (e.g. cerebral amyloid angiopathy and reversible cerebral vasoconstriction syndrome) with differing symptom associations and risks. For such patients, assessment of fitness will depend on the underlying aetiology and presence of neurological impairments as described in Box 3. The vision standard may apply (refer to section 10. Vision and eye disorders). If the person has had one or more seizures, the seizures and epilepsy standards also apply (refer to section 6.2. Seizures and epilepsy). If a craniotomy has been performed, the advice for intracranial surgery also applies (refer to page 153). A practical driver assessment may be considered (refer to Part A section 2.3.1. Practical driver assessment).

Space-occupying lesions including brain tumours[15,16]

Brain tumours and other space-occupying lesions (e.g. abscesses, chronic subdural haematomas, cysticercosis) may cause diverse effects depending on their location and type. They may impair any of the neurological functions listed in Box 3. If the person has had one or more seizures, the seizures and epilepsy standards also apply (refer to section 6.2. Seizures and epilepsy). If a craniotomy has been performed, the advice regarding intracranial surgery also applies (refer to page 153).

Other neurological conditions including autism spectrum disorder and other developmental and intellectual disabilities[17–21]

The impact of other neurological conditions including autism spectrum disorder (ASD) and developmental and intellectual disability should be assessed individually. A practical driver assessment may be required. If the degree of impairment is static, periodic review is not usually required.

People with ASD can have differences in social communication and interaction, with restricted and repetitive patterns of behaviour, interest and activities. Although evidence from driving studies are limited, drivers with ASD may drive differently from people without ASD. Shortcomings in tactical driving skills have been observed, while rule-following aspects of driving are improved. There is considerable difference in the range and severity of ASD symptoms, so assessment should focus on these and the significance of likely functional effects, rather than an ASD diagnosis. People with ASD **may** have difficulty with:

- managing attention and distraction
- understanding non-verbal communication from other drivers
- planning and organisation of the driving task and adapting to unexpected change
- sensory sensitivities (e.g. glare and sound)
- emotional regulation and input overload
- repetitive behaviours such as rocking or hand flapping.

6.3.2. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table.

The standards for medical conditions in the table on page 158 (in alphabetical order) cover:

- aneurysms (unruptured intracranial aneurysms and other vascular malformations)
- cerebral palsy
- head injury
- intracranial surgery
- Ménière's disease
- multiple sclerosis
- neuromuscular conditions
- other neurological conditions
- Parkinson's disease
- stroke
- transient ischaemic attacks
- space-occupying lesions including brain tumours
- subarachnoid haemorrhage.

Medical standards for licensing – neurological conditions

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Aneurysms (unruptured intracranial aneurysms) and other vascular malformations of the brain Refer also to subarachnoid haemorrhage.	A person is **not** fit to hold an **unconditional licence**: • if the person has an unruptured intracranial aneurysm or other vascular malformation at high risk of major symptomatic haemorrhage. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by an **appropriate specialist** regarding: • the response to treatment. If treated surgically, the intracranial surgery advice applies. If the person has had a seizure, the seizure and epilepsy standards apply (refer to section 6.2. Seizures and epilepsy).	A person is **not** fit to hold an **unconditional licence**: • if the person has an unruptured intracranial aneurysm or other vascular malformation. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by an **appropriate specialist** regarding: • the risk of major symptomatic haemorrhage; **and** • the response to treatment. If treated surgically, the intracranial surgery advice applies. If the person has had a seizure, the seizure and epilepsy standards apply (refer to section 6.2. Seizures and epilepsy).

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Cerebral palsy Refer also to neuromuscular and/or other neurological conditions.	A person is **not** fit to hold an **unconditional licence**: • if the person has cerebral palsy producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, sensation, muscle power, coordination, vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** regarding the likely impact of the neurological impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments); **and** • the need for vehicle modifications. Periodic review is not required if the condition is static.	A person is **not** fit to hold an **unconditional licence**: • if the person has cerebral palsy producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, sensation, muscle power, coordination, vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the likely impact of the neurological impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments); **and** • the need for vehicle modifications. Periodic review is not required if the condition is static.

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Head injury Refer also to intracranial surgery (below).	A person should not drive for at least 24 hours following a head injury causing loss of consciousness. A person is **not** fit to hold an **unconditional licence**: • if the person has had a head injury producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** regarding the likely impact of the neurological impairment on driving ability and the presence of other disabilities that may impair driving as per this publication; **and** • the results of neuropsychological testing if indicated; **and** • the results of a practical driver assessment if required. Periodic review is not required if the condition is static. If a seizure has occurred, refer to section 6.2. Seizures and epilepsy.	A person should not drive for at least 24 hours following a head injury causing loss of consciousness. A person is **not** fit to hold an **unconditional licence**: • if the person has had a head injury producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the likely impact of the neurological impairment on driving ability and the presence of other disabilities that may impair driving as per this publication; **and** • the results of neuropsychological testing if indicated; **and** • the results of a practical driver assessment if required. Periodic review is not required if the condition is static. A person is **not** fit to hold an **unconditional licence**: • if they have a high risk of post-traumatic epilepsy (penetrating brain injury, brain contusion, subdural haematoma, loss of consciousness/alteration of consciousness or post-traumatic amnesia greater than 24 hours). A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating doctor** as to whether the following criterion is met: • the person has had no seizures for at least **12 months**. If a seizure has occurred, refer to section 6.2. Seizures and epilepsy.

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Intracranial surgery (advisory only)	A person should not drive for **6 months** following supratentorial surgery or retraction of the cerebral hemispheres. If there are seizures or long-term neurological deficits, refer to section 6.2. Seizures and epilepsy.	A person should not drive for **12 months** following supratentorial surgery or retraction of the cerebral hemispheres. If there are seizures or long-term neurological deficits, refer to section 6.2. Seizures and epilepsy.
Ménière's disease	Refer to section 6.3.1. General assessment and management guidelines.	A person requires individualised assessment by an ENT specialist.
Multiple sclerosis	A person is **not** fit to hold an **unconditional licence**: • if the person has multiple sclerosis and significant impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** regarding the likely impact of the neurological impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments); **and** • the need for vehicle modification.	A person is **not** fit to hold an **unconditional licence**: • if the person has multiple sclerosis. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields) and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments); **and** • the need for vehicle modification.

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Neuromuscular conditions (peripheral neuropathy, muscular dystrophy, etc.)	A person is **not** fit to hold an **unconditional licence**: • if the person has peripheral neuropathy, muscular dystrophy or any other neuromuscular disorder that significantly impairs muscle power, sensation or coordination. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** regarding the likely impact of the impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments); **and** • the need for vehicle modification.	A person is **not** fit to hold an **unconditional licence**: • if the person has peripheral neuropathy, muscular dystrophy or any other neuromuscular disorder that significantly impairs muscle power, sensation or coordination. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the likely impact of the impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments); **and** • the need for vehicle modification.
Parkinson's disease	A person is **not** fit to hold an **unconditional licence**: • if the person has Parkinson's disease with significant impairment of movement or reaction time or the onset of dementia. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** regarding the likely impact of the neurological impairment on driving ability and the response to treatment; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments).	A person is **not** fit to hold an **unconditional licence**. • if the person has Parkinson's disease. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the likely impact of the neurological impairment on driving ability and the response to treatment; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments).

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Stroke (cerebral infarction or intracerebral haemorrhage)	A person should not drive for at least **4 weeks** following a stroke. Treatable causes of stroke should be identified and managed with reference to this standard. A person **may resume** driving **without licence restriction** or further review, after at least **4 weeks**, if: • the person has no neurological deficit or only minor residual symptoms that **do not** cause functionally significant impairment relevant to the safe execution of driving of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields). The person **does not** require reassessment in relation to licensing if they meet the above criteria when discharged from specialist care within **4 weeks** of the stroke. If the person requires post-stroke rehabilitation their functional deficits may indicate impacts on driving capacity. Where a person has persistent functionally significant symptoms or deficits relevant to the safe execution of driving, the driver licensing authority may consider a return to driving on a **conditional licence**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields) and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). Periodic review is not usually required if the condition is static. Refer to the review requirements in sections 5. Musculoskeletal conditions, 6.2. Seizures and epilepsy and 10. Vision and eye disorders if these standards apply.	A person should not drive for at least **3 months** following a stroke. Treatable causes of stroke should be identified and managed with reference to this standard. A person is **not** fit to hold an **unconditional licence**: • if the person has had a stroke. A **conditional licence** may be considered by the driver licensing authority after at least **3 months** and subject to at least **annual review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields) and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments).

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Transient ischaemic attack (advisory only)	A person should not drive for at least **2 weeks** following a TIA. A conditional licence is not required.	A person should not drive for at least **4 weeks** following a TIA. A conditional licence is not required.
Space-occupying lesions (including brain tumours) Refer also to intracranial surgery.	A person is **not** fit to hold an **unconditional licence**: • if the person has had a space-occupying lesion that results in significant impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** about the likely impact of the neurological impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). If seizures occur, the standards for seizures and epilepsy apply (refer to section 6.2. Seizures and epilepsy). If surgically treated, the advice for intracranial surgery applies.	A person is **not** fit to hold an **unconditional licence**: • if the person has had a space-occupying lesion. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields) and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). If seizures occur, the standards for seizures and epilepsy apply (refer to section 6.2. Seizures and epilepsy). If surgically treated, the advice for intracranial surgery applies.

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Subarachnoid haemorrhage Refer also to aneurysms.	A person should not drive for at least **3 months** after a subarachnoid haemorrhage*. A person is **not** fit to hold an **unconditional licence**: • if the person has had a subarachnoid haemorrhage*. A **conditional licence** may be considered by the driver licensing authority after **3 months** and subject to **periodic review**, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields) and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). ** This does not include a minor non-aneurysmal subarachnoid haemorrhage restricted to the cerebral convexity unless impairments are present – refer to page 156.*	A person should not drive for at least **6 months** after a subarachnoid haemorrhage*. A person is **not** fit to hold an **unconditional licence**: • if the person has had a subarachnoid haemorrhage*. A **conditional licence** may be considered by the driver licensing authority after **6 months** and subject to **periodic review**, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, comprehension, reaction time, memory, sensation, muscle power, coordination or vision (including visual fields) and the likely impact on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). ** This does not include a minor non-aneurysmal subarachnoid haemorrhage restricted to the cerebral convexity unless impairments are present – refer to page 156.*

Medical standards for licensing – neurological conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Other neurological conditions (e.g. autism spectrum disorder, other developmental and intellectual disabilities)	A person is **not** fit to hold an **unconditional licence**: • if the person has a neurological disorder that significantly impairs any of the following: visuospatial perception, insight, judgement, behaviour, attention, comprehension, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority subject to **periodic review***, taking into account: • the nature of the driving task; **and** • information provided by the **treating doctor** about the likely impact of the neurological impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). ** Periodic review may not be necessary if the condition is static.*	A person is **not** fit to hold an **unconditional licence**: • if the person has a neurological disorder that significantly impairs any of the following: visuospatial perception, insight, judgement, behaviour, attention, comprehension, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields). A **conditional licence** may be considered by the driver licensing authority subject to **periodic review***, taking into account: • the nature of the driving task; **and** • information provided by an **appropriate specialist** about the likely impact of the neurological impairment on driving ability; **and** • the results of a practical driver assessment if required (refer to Part A section 2.3.1. Practical driver assessments). ** Periodic review may not be necessary if the condition is static.*

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

References and further reading

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7. Psychiatric conditions

Refer also to section 6. Neurological conditions *and section* 9. Substance misuse*.*

Psychiatric conditions encompass a range of cognitive, emotional and behavioural conditions such as schizophrenia, depression, anxiety disorders and personality disorders. They also include dementia and substance abuse conditions, which are addressed elsewhere in the standards (refer to section 6.1. Dementia and section 9. Substance misuse).

7.1. Relevance to the driving task

7.1.1. Effects of psychiatric conditions on driving[1–4]

Psychiatric conditions may be associated with disturbances of behaviour, cognitive abilities and perception and therefore have the potential to affect driving ability. They do, however, differ considerably in their aetiology, symptoms and severity, and may be occasional or persistent. The impact of mental illness also varies depending on a person's social circumstances, occupation and coping strategies. Assessment of fitness to drive must therefore be individualised and should rely on an evaluation of the specific pattern of illness and potential impairments as well as severity, rather than the diagnosis per se. The range of potential impairments for various conditions is described below.

People with **schizophrenia** may have impairments across many domains of cognitive function including:

- reduced ability to sustain concentration or attention
- reduced cognitive and perceptual processing speeds including reaction time
- reduced ability to perform in complex conditions – for example, when there are multiple distractions
- perceptual abnormalities – for example, hallucinations that distract attention or are preoccupying
- delusional beliefs that interfere with driving – for example, persecutory beliefs may include being followed and result in erratic driving, or grandiose beliefs may result in extreme risk taking.

People with **bipolar affective condition** may demonstrate:

- depression and suicidal ideation
- mania or hypomania, with impaired judgement about driving skill and associated recklessness
- delusional beliefs that directly affect driving.

People with depression may demonstrate:

- disturbances in attention, information processing and judgement, including reduced ability to anticipate
- psychomotor retardation and reduced reaction times
- sleep disturbances and fatigue
- suicidal ideation that may manifest in reckless driving.

People with **anxiety conditions** (including post-traumatic stress disorder) may:

- be preoccupied or distractible
- experience panic attacks or obsessional behaviours that may impair driving.

People with **personality conditions** may be:

- aggressive or impulsive
- resentful of authority or reckless.

People with **attention-deficit/hyperactivity disorder** may:

- be more prone to angry aggressive and risky driving behaviour
- have difficulty in planning, organising and prioritising tasks
- have difficulty in sustaining or shifting focus
- have difficulty managing frustration, modulating emotions and self-regulation.

These impairments are difficult to determine because impairment differs at various phases of the illness and may vary markedly between individuals. The impairments described above are particularly important for commercial vehicle drivers.

7.1.2. Evidence of crash risk[1,3,4]

There is limited evidence about the impact of psychiatric illness on crash risk. Some studies have shown that drivers with psychiatric illness have an increased crash risk compared with drivers without psychiatric illness. There is also specific evidence for increased risk among those with schizophrenia and personality conditions. The evidence suggests a modestly elevated risk for people with low levels of impairment; however, it is possible that people with higher levels of impairment self-regulate their driving or drive more slowly and cautiously, therefore reducing their risk.

7.1.3. Impairments associated with medication[5]

Medications prescribed for treating psychiatric conditions may impair driving performance. There is, however, little evidence that medication, if taken as prescribed, contributes to crashes; in fact, it may even help reduce the risk of a crash (refer to Part A section 2.2.9. Drugs and driving). Numerous psychotropic medications have been shown to impair perception, vigilance and psychomotor skills. Many medications can produce side effects such as sedation, lethargy, impaired psychomotor function and sleep disturbance. Benzodiazepines have especially been shown to impair vision, attention, information processing, memory, motor coordination and combined-skill tasks. Tolerance to the sedating effects may develop after the first few weeks, although other cognitive impairments may persist. The assessment of medication effects should be individualised and rely upon self-report, observation, clinical assessment and collateral information to determine if particular medications might affect driving. If a person is prescribed stimulants (e.g. dexamphetamine) for treating attention-deficit/hyperactivity disorder, this should be stated in the advice provided to the driver licensing authority.

Health professionals should have heightened concern when sedative medications are prescribed but should also consider the need to treat psychiatric conditions effectively. Refer also to section 9. Substance misuse.

7.2. General assessment and management guidelines[2,6,7]

7.2.1. General considerations

In assessing the impact of mental illness on the ability to drive safely, the focus should be on assessing the severity and significance of likely functional effects, rather than the simple diagnosis of a mental illness. Information relevant to the assessment may be gained from case workers and others involved in the ongoing management of the person. The review period should be tailored to the likely prognosis or pattern of progression of the condition in an individual. Commercial vehicle licences warrant greater concern and a lower threshold for intervention.

Mild mental illness does not usually have a significant impact on functioning. Moderate levels of mental illness commonly affect functioning, but many people will be able to manage usual activities, often with some modification. Severe mental illness often impairs multiple domains of functioning, and it is this category that is most likely to affect the functions and abilities required for safe driving. A person's medication requirements should not be used as the only measure of disease severity.

Contraindications to driving

A person seen or reported to have any of the following problems can be advised not to drive until the condition has been evaluated and treated:

- condition relapses sufficient to impair perceptions, mood or thinking
- lack of insight or lack of cooperation with treatment
- an intent to use a vehicle to cause self-harm
- an intent to use a vehicle to harm others.

7.2.2. Reporting patients

If a patient appears unwilling or unable to accept advice about restricting their driving, the health professional should consider if it is appropriate to report directly to the driver licensing authority and, if so, determine how best such a notification can be made while continuing to engage the person in treatment that is beneficial to them. It may also be appropriate to notify the police cases where there is an immediate threat to public safety or high risk – for example, drivers with a history of reckless driving, crashes or intentions to cause harm involving motor vehicles. Refer to Part A section 3.3.1. Confidentiality, privacy and reporting to the driver licensing authority and Appendix 3.2. Legislation relating to reporting by health professionals.

7.2.3. Mental state examination

The mental state examination can be usefully applied in identifying the following areas of impairment that may affect fitness to drive:

- **Appearance**. Appearance is suggestive of general functioning (e.g. attention to personal hygiene, grooming, sedation, indications of substance use).
- **Attitude**. This may, for example, be described as cooperative, uncooperative, hostile, guarded or suspicious. While subjective, it helps to evaluate the quality of information gained in the rest of the assessment and may reflect personality attributes.
- **Behaviour**. This may include observation of specific behaviours or general functioning including ability to function in normal work and social environments.
- **Mood and affect**. This includes elevated mood (increase in risk taking) and low mood (suicidal ideation, particularly if past attempts, current ideation or future plans involve driving vehicles). Suicide involving motor vehicles is relatively common.
- **Thought form, stream and content**. This relates to the logic, quantity, flow and subject of thoughts that may be affected by mania, depression, schizophrenia or dementia. Delusions with specific related content may have an impact on driving ability.
- **Perception**. This relates to the presence of disturbances, such as hallucinations, that may interfere with attention or concentration, or may influence behaviour.
- **Cognition**. This relates to alertness, orientation, attention, memory, visuospatial functioning, language functions and executive functions. Evidence from formal testing, screening tests and observations related to adaptive functioning may be sought to determine if a psychiatric disorder is associated with deficits in these areas that are relevant to driving.

- **Insight**. Insight relates to self-awareness of the effects of the condition on behaviour and thinking. Assessment requires an exploration of the person's awareness of the nature and impacts of their condition and has major implications for management.
- **Judgement**. The person's ability to make sound and responsible decisions has obvious implications for road safety. As judgement may vary, it should not be assessed in a single consultation.

7.2.4. Treatment

The effects of prescribed medication should also be considered for the individual including:

- how medication may help to control or overcome aspects of the condition that may affect driving safety
- what medication side effects may affect driving ability including risk of sedation, impaired reaction time, impaired motor skills, blurred vision, hypotension and dizziness.

Alternative treatments including 'talking therapies' may be useful as an alternative or supplement to medication and lessen the risk of medication affecting driving. The health professional could advise non-driving periods to allow time for the patient to adjust to medication and for the health professional to evaluate the patient's response and their adherence to treatments. Refer to Part A section 2.2.9. Drugs and driving for further guidance to consider the effects of prescribed medication when performing an assessment.

7.2.5. Comorbidities

People with a psychiatric condition and substance misuse (section 9. Substance misuse) or chronic pain (section 5. Musculoskeletal conditions) comorbidities may be at higher risk and warrant careful consideration.

The assessment should identify the potential relevance of:

- problematic alcohol consumption
- use of illicit substances
- chronic pain
- prescription drug abuse (e.g. increased use of benzodiazepines, sedatives or painkillers).

7.2.6. Insight

The presence or absence of insight has implications for management.

- The person with insight may recognise when they are unwell and self-limit their driving.
- Limited insight may be associated with reduced awareness or deficits and may result in markedly impaired judgement or self-appraisal.
- The person might exhibit significantly impaired insight and appear unwilling to accept advice about restricting their driving.

7.2.7. Acute psychotic episodes

A person suffering an acute episode of mental illness (e.g. psychosis, moderate–severe depression or mania) may pose a significant risk. The health professional should advise a person in this situation not to drive until their condition has stabilised and a decision can be made about their future licence status. This is particularly relevant to commercial vehicle drivers.

7.2.8. Severe chronic conditions

A person with a severe chronic or relapsing psychiatric condition needs to be assessed for the effect of the illness on impairment and the skills needed to drive and the impairments that may arise. This may include a clinical assessment (e.g. neuropsychological) and may also include an on-road driving assessment (refer to Part A section 2.3.1. Practical driver assessments).

7.2.9. Psychogenic nonepileptic seizures[8,9]

Some transient episodes of apparently impaired consciousness, awareness or motor control resemble epileptic seizures or syncope, yet have a psychological cause. These episodes are usually termed psychogenic nonepileptic seizures (PNES), although they are sometimes known as dissociative, functional or pseudoseizures. Most patients diagnosed with PNES self-report loss of responsiveness or loss of awareness that may place them at an increased risk of causing a motor vehicle accident.

The safety risk is sufficiently low after a three-month period, with no further psychogenic seizures, to allow a return to driving. People with active PNES should generally not be allowed to drive if they lose awareness or responsiveness with their psychogenic seizures, have a history of seizure related injuries, or if the semiology suggests that ability to drive would be impaired during a psychogenic seizure.

People with active PNES may be considered for driving under the private standards after 12 months if PNES only occurs when the person could not be driving or after exposure to specific triggers that cannot be encountered when driving. This must be well established without exceptions and corroborated by reliable witnesses.

Diagnosis of PNES must establish that such episodes are psychogenic only. This may require recording an episode with video or video-EEG. Approximately 20 per cent of people with PNES have a history of epilepsy. In such patients, it is important to distinguish between the two types of attack and to establish whether an epileptic seizure has occurred. The seizure and epilepsy standards may apply in these cases (refer to section 6.2. Seizures and epilepsy). If there is uncertainty regarding the type of attack, the blackouts of uncertain mechanism (refer to section 1. Blackouts) standards may apply. If more than one standard applies, the longer non-driving period prevails.

It is good medical practice for any person with initial PNES to be referred to a specialist, where available, for accurate diagnosis so that appropriate treatment is instituted and all the risks associated with PNES, including driving, can be explained.

With regard to licensing, the treating doctor/general practitioner may liaise with the driver licensing authority about whether the criteria are met for driving a private vehicle, but only a specialist may do so for a commercial vehicle driver.

7.2.10. Personality disorders

Some people with a personality disorder may display aggressive, irresponsible or erratic behaviour and could benefit from psychiatric interventions. Their licence status may also need to be managed through administrative, police or legal channels.

7.2.11. Post-traumatic stress disorder

Post-traumatic stress disorder may arise following motor vehicle crashes. Return to safe, competent driving may be assisted by therapy such as cognitive behaviour therapy and by driving rehabilitation courses.

7.2.12. Other psychiatric conditions

Specialist advice may need to be sought for drivers who have a psychiatric condition not covered here.

Where a psychiatric condition is associated with epilepsy or illicit drug use, the relevant section should also be referenced.

7.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table.

Medical standards for licensing – psychiatric conditions

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Psychiatric conditions (e.g. schizophrenia, bipolar affective condition, depression, anxiety conditions, and personality conditions) Refer also to section 7.1.1. Effects of psychiatric conditions on driving.	A person is **not** fit to hold an **unconditional licence**: • if the person has a chronic psychiatric condition of such severity that it is likely to impair insight, behaviour, cognitive ability or perception required for safe driving. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • the condition is well controlled and the person complies with treatment over a substantial period; **and** • the person has insight into the potential effects of their condition on safe driving; **and** • there are no adverse medication effects that may impair their capacity for safe driving (also refer to Part A section 2.2.9. Drugs and driving); **and** • the impact of comorbidities has been considered (e.g. substance abuse).	A person is **not** fit to hold an **unconditional licence**: • if the person has a chronic psychiatric condition of such severity that is likely to impair behaviour, cognitive ability or perception required for safe driving. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by a **psychiatrist*** as to whether the following criteria are met: • the condition is well controlled and the person complies with treatment over a substantial period; **and** • the person has insight into the potential effects of their condition on safe driving; **and** • there are no adverse medication effects that may impair their capacity for safe driving (also refer to Part A section 2.2.9. Drugs and driving); **and** • the impact of comorbidities has been considered (e.g. substance abuse). ** Where the treating psychiatrist considers a driver's condition to be stable, well managed, and the driver has good insight, the driver licensing authority may agree to ongoing periodic review by the person's regular GP on mutual agreement of all practitioners concerned. The initial allocation of a conditional licence must, however, be based on an assessment and information provided by the psychiatrist.*

Medical standards for licensing – psychiatric conditions		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Psychogenic nonepileptic seizures Refer also to section 6.2. Seizures and epilepsy	A person is **not** fit to hold an **unconditional licence**: • if the person has experienced a psychogenic seizure. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account information provided by the **treating doctor** as to whether the following criteria are met: • seizures are identified as psychogenic only with no epileptic seizures*; **and** • there have been no further psychogenic seizures for at least **3 months** or • the situational context or the semiology has been stable for at least **12 months** and the psychogenic seizures – have not caused a loss of awareness or responsiveness; **and** – have not resulted in injury; **and** – would not disrupt the driving task or • could not occur when a person is driving; **and** • only occur in response to triggers that will not be encountered whilst driving. ** The seizure and epilepsy standards also apply in cases where there is co-existent epilepsy (refer to section 6.2. Seizures and epilepsy). If psychogenic and epileptic seizures cannot be differentiated, the* Blackouts of uncertain mechanism *standards apply (refer to section 1.2.4. Blackouts of undetermined mechanism). If more than one standard applies, the standard with the longer non-driving period prevails.*	A person is **not** fit to hold an **unconditional licence**: • if the person has experienced a psychogenic seizure. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account information provided by the **treating neurologist or psychiatrist** as to whether the following criteria are met: • seizures are identified as psychogenic only with no epileptic seizures*; **and** • there have been no further psychogenic seizures for at least **3 months**. ** The seizure and epilepsy standards also apply in cases where there is co-existent epilepsy (refer to section 6.2. Seizures and epilepsy). If psychogenic and epileptic seizures cannot be differentiated, the* Blackouts of uncertain mechanism *standards apply (refer to section 1.2.4. Blackouts of undetermined mechanism). If more than one standard applies, the standard with the longer non-driving period prevails.*

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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8. Sleep disorders

Refer also to section 1. Blackouts.

8.1. Relevance to the driving task

8.1.1. Evidence of crash risk[1]

Studies have shown an increased rate of motor vehicle crashes of between two and seven times that of among control subjects in those with sleep apnoea. Studies have also demonstrated increased objectively measured sleepiness while driving (electro-encephalography and eye closure measurements) and impaired driving-simulator performance in people with confirmed sleep apnoea. This performance impairment is similar to that seen due to illegal alcohol impairment or sleep deprivation. Drivers with severe sleep-disordered breathing (respiratory disturbance index > 34) may have a higher rate of crashes than those with a less severe sleep disorder.

Those with narcolepsy perform worse on simulated driving tasks and are more likely to have vehicle crashes than control subjects.

8.1.2. Impact of treatment on crash risk[2–5]

Treating obstructive sleep apnoea (OSA) with nasal continuous positive airways pressure (CPAP) has been shown to reduce daytime sleepiness and reduce the risk of crashes to the same level as controls. CPAP has also been shown to improve driving-simulator performance to the same levels as the control group. When used to treat OSA, mandibular advancement splints reduce daytime sleepiness and improve vigilance; however, studies have not been performed to assess whether they reduce motor vehicle crash rates.

8.2. General assessment and management guidelines

8.2.1. General considerations[6–10]

Excessive daytime sleepiness, which manifests itself as a tendency to doze at inappropriate times when intending to stay awake, can arise from many causes and is associated with an increased risk of motor vehicle crashes. It is important to distinguish sleepiness (the tendency to fall asleep) from fatigue or tiredness that is not associated with a tendency to fall asleep. Many chronic illnesses cause fatigue without increased sleepiness.

Increased sleepiness during the daytime in otherwise normal people may be due to prior sleep deprivation (restricting the time for sleep), poor sleep hygiene habits, irregular sleep–wake schedules or the influence of sedative medications, including alcohol. Insufficient sleep (less than five hours) prior to driving is strongly related to motor vehicle crash risk. Excessive daytime sleepiness may also result from a range of medical sleep disorders including the sleep apnoea syndromes (OSA, central sleep apnoea and nocturnal hypoventilation), periodic limb movement disorder, circadian rhythm disturbances (e.g. advanced or delayed sleep phase syndrome), some forms of insomnia and narcolepsy.

Unexplained episodes of ‘sleepiness’ may also require consideration of the several causes of blackouts (refer to section 1. Blackouts).

8.2.2. Identifying and managing people at high crash risk[4,10,11]

Until the disorder is investigated, treated effectively and licence status determined, people should be advised to avoid or limit driving if they are sleepy, and not to drive if they are at high risk, particularly in the case of commercial vehicle drivers. High-risk people include:

- those who experience moderate to severe excessive daytime sleepiness
- those with a history of frequent self-reported sleepiness while driving
- those who have had a motor vehicle crash caused by inattention or sleepiness.

People with these high-risk features have a significantly increased risk of sleepiness-related motor vehicle crashes. These people should be referred to a sleep disorders specialist, particularly in the case of commercial vehicle drivers. Driving limitations may include avoiding driving at night and after consuming alcohol or sedative drugs, and limiting continuous driving (e.g. to between 15 minutes and two hours depending on symptoms) until effective treatment is implemented (refer to section 8.2.5. Advice to patients).[8]

8.2.3. Sleep apnoea[10,12–15]

Definitions and prevalence

Diagnosed sleep apnoea has been reported in 8.3 per cent of Australian adults, 12.9 per cent of men and 3.7 per cent of women. Approximately 3 per cent of adults have diagnosed sleep apnoea and excessive daytime sleepiness, indicating a significant tendency to doze off in various situations during the daytime, including when driving. Sleep apnoea syndrome (excessive daytime sleepiness in combination with sleep apnoea on overnight monitoring) is present in 2 per cent of women and 4 per cent of men. Some studies suggest a higher prevalence in transport drivers.

OSA involves repetitive obstruction to the upper airway during sleep, caused by relaxation of the dilator muscles of the pharynx and tongue and/or narrowing of the upper airway, resulting in cessation (apnoea) or reduction (hypopnoea) of breathing.

Central sleep apnoea refers to a similar pattern of cyclic apnoea or hypopnoeas caused by oscillating instability of respiratory neural drive, and not due to upper airways factors. This condition is less common than OSA and is associated with cardiac or neurological conditions. It may also be idiopathic. Hypoventilation associated with chronic obstructive pulmonary disease or chronic neuromuscular conditions may also interfere with sleep quality, causing excessive sleepiness.

Sleep apnoea assessment

Evaluating sleep apnoea includes a clinical assessment of the likelihood of sleep apnoea followed by overnight monitoring (sleep study) to identify sleep apnoea and its severity, as well as assessing sleepiness based on subjective and sometimes objective tools.

Clinical and physical features[12,16]

Clinical features can have a high predictive value for a subsequent diagnosis of OSA via a sleep study. Criteria of significant concern include:

- BMI ≥ 40 kg/m2
- BMI ≥ 35 kg/m2 and either
  - hypertension requiring ≥ 2 medications for control, or
  - type 2 diabetes
- sleepiness-related crash or accident, off-road deviation, or rear-ending another vehicle by report or observation
- excessive sleepiness during the major wake period.

Other clinical features include:

- habitual snoring during sleep
- witnessed apnoeic events (often in bed by a spouse/partner) or falling asleep inappropriately (particularly during non-stimulating activities such as watching television, sitting reading, travelling in a car, when talking with someone)
- feeling tired despite adequate time in bed.

Poor memory and concentration, morning headaches and insomnia may also be presenting features. The condition is more common in men and with increasing age. Other physical features commonly include a thick neck (>42 cm in men, >41 cm in women) and a narrow oedematous ('crowded') oropharynx. The presence of type 2 diabetes and difficult-to-control high blood pressure should also increase the suspicion of sleep apnoea. However, the condition may be present without these features.

The STOP-BANG, OSA-50, and Berlin Questionnaire are clinical screening tools with demonstrated predictive value for subsequent diagnosis of sleep apnoea. Using these questionnaires may assist in the decision to refer for further sleep studies. For general guidance on sleep studies, refer to relevant best practice guidelines (e.g. Australasian Sleep Association's *Guidelines for sleep studies in adults,*[17] available at www.sleep.org.au).

Sleep studies, referral and management[17,18]

People in whom sleep apnoea, chronic excessive sleepiness or another medical sleep disorder is suspected should be referred to a specialist sleep physician for further assessment, investigation with overnight polysomnography (either in the laboratory or home) and management. Home sleep studies are widely available with Medicare reimbursed direct referrals offered for patients who have a high score on sleep apnoea and daytime sleepiness screening questionnaires (e.g. ≥ 3 on STOP-Bang and Epworth Sleepiness Scale score ≥ 8).

Referral to a sleep specialist should also be considered for any person who has unexplained daytime sleepiness while driving, or who has been involved in a motor vehicle crash that may have been caused by sleepiness.

Non-driving or restricted driving periods can be considered while assessing the response to treatment and may be determined on a case-by-case basis. Examples of restrictions that can be considered include limiting driving duration (e.g. from 30 minutes with graduated increasing times) or no night driving (11PM–7AM). For commercial vehicle drivers, this is assessed by a sleep specialist considering the improvement in sleepiness and the related driving risk. The efficacy of treatment should be documented with:

- minimal adherence to treatment
- effectiveness of treatment
- resolution of sleepiness.

A person found to be positive for moderate to severe OSA on polysomnography, but who denies symptoms and declines treatment, may be offered a Maintenance of Wakefulness Test (MWT) (the MWT should include a drug screen and apply a 40-minute protocol). For those with a normal MWT, the driver licensing authority may consider a conditional licence without OSA treatment subject to review in one year.

Subjective measures of sleepiness[19–21]

Determining excessive daytime sleepiness is a clinical decision, which may be assisted with clinical tools. Tools such as the Epworth Sleepiness Scale (ESS) or other validated questionnaires can be used as subjective measures of excessive daytime sleepiness while recognising that the ESS is neither sensitive nor specific in the diagnosis of OSA. Such tests rely on honest completion by the driver, and there is evidence that incorrect reporting may occur in some cases. The tools are therefore just one aspect of the comprehensive assessment.

The responses to eight questions for the ESS (refer to Figure 15. Epworth Sleepiness Scale questions) relating to the likelihood of falling asleep in certain situations are scored and summed. A score of 0–10 is within the normal range, 11–15 indicates mild-moderate daytime sleepiness, and a score of 16–24 indicates moderate to severe excessive daytime sleepiness and may be associated with an increased risk of motor vehicle crashes.

A history of frequent self-reported sleepiness while driving or motor vehicle crashes caused by sleepiness also indicates a high risk of motor vehicle crashes.

Figure 15. Epworth Sleepiness Scale questions

Epworth Sleepiness Scale questions

How likely are you to doze off or fall asleep in the following situations?
Scored 0–3, where:
0 = never
1 = light chance
2 = moderate chance
3 = high chance of dozing

Situation		Score
1.	Sitting and reading	☐
2.	Watching TV	☐
3.	Sitting, inactive in a public space (e.g. a theatre or meeting)	☐
4.	As a passanger in a car for an hour without a break	☐
5.	Lying down to rest in the afternoon when circumstances permit	☐
6.	Sitting and talking to someone	☐
7.	Sitting quietly after a lunch without alcohol	☐
8.	In a car, while stopped for a few minutes in the traffic	☐
	Total score:	

* The Epworth Sleepiness Scale is under copyright to Dr Murray Johns 1991–1997.
It may be used by individual doctors without permission, but its use on a commercial basis must be negotiated.

Objective measures of sleepiness[22]
Objective measures include the MWT. Excessive sleepiness on the MWT suggests impaired driving performance.

Screening tools that combine questions and physical measurements (e.g. the Multivariate Apnoea Prediction Questionnaire) have been evaluated for screening people for sleep disorders in a clinical setting. Their efficacy for screening large general populations remains under evaluation.

Commercial vehicle drivers
Commercial vehicle drivers who are diagnosed with sleep apnoea and require treatment must have an annual review by a sleep specialist to ensure adequate treatment is maintained. For drivers who are treated with CPAP, it is recommended that they use CPAP machines with a usage meter to allow objective assessment and recording of treatment compliance. Minimally acceptable adherence with treatment is defined as four hours or more per day of use on 70 per cent or more of days. An assessment of sleepiness should be made, and an objective measurement of sleepiness should be considered (MWT), particularly if there is a concern about persisting sleepiness or treatment compliance.

8.2.4. Narcolepsy[23–25]

Narcolepsy is present in 0.05 per cent of the population and usually starts in the second or third decade of life. Sufferers present with excessive sleepiness and can have periods of sleep with little or no warning of sleep onset. Other symptoms include cataplexy, sleep paralysis and vivid hypnagogic hallucinations. Inadequate warning of oncoming sleep and cataplexy put drivers at high risk.

There is a subgroup of people who are excessively sleepy but do not have all the diagnostic features of narcolepsy. In addition, some people may have other central disorders of hypersomnolence such as idiopathic hypersomnia. For drivers with idiopathic hypersomnia or sleepiness due to other central disorders of hypersomnolence, refer to the medical standards for *Sleep apnoea syndrome, excessive sleepiness*, and other sleep disorders on page 185.

Diagnosis of narcolepsy is made on the combination of clinical features. A multiple sleep latency test (MSLT) is conducted, with a diagnostic sleep study on the prior night to exclude other sleep disorders and aid interpretation of the MSLT.

Drivers suspected of having narcolepsy should be referred to a sleep specialist or neurologist for assessment (including an MSLT) and management.

Sleepiness in narcolepsy can usually be managed effectively with scheduled naps and stimulant medication. Additional treatment for cataplexy may be required. Commercial vehicle drivers on a conditional licence should have a review at least annually by their specialist.

8.2.5. Advice to patients

All patients suspected of having sleep apnoea or other sleep disorders should be warned about the potential effect on road safety. General advice may include:

- minimising unnecessary driving
- minimising driving at times when they would normally be asleep
- allowing adequate time for sleep and avoiding driving after having missed a large portion of their normal sleep
- avoiding alcohol and sedative medications
- avoiding using over-the-counter or other non-prescribed substances for maintaining wakefulness
- ensuring prescribed treatments are taken as required
- resting and limiting driving if they are sleepy
- heeding the advice of a passenger that the driver is dozing off.

It is the responsibility of the driver to avoid driving if they are sleepy, comply with treatment, maintain their treatment device, attend review appointments and honestly report their condition to their treating physician.

8.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table.

Medical standards for licensing – sleep disorders

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Sleep apnoea, excessive sleepiness and other sleep disorders (e.g. all sleep apnoea, idiopathic hypersomnia and other central disorders of hypersomnolence) Refer also to narcolepsy.	A person is **not** fit to hold an **unconditional licence**: • if the person has an established sleep apnoea syndrome (sleep apnoea on a diagnostic sleep study and moderate to severe excessive daytime sleepiness*); **or** • if the person has frequent self-reported* episodes of sleepiness or drowsiness while driving; **or** • if the person has had motor vehicle crash(es) caused by inattention or sleepiness; **or** • if the person, in the opinion of the **treating doctor**, represents a significant driving risk as a result of a sleep disorder. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • the person complies with treatment; **and** • the response to treatment is satisfactory. ** The treating doctor should not rely solely on subjective measures of sleepiness such as the Epworth Sleepiness Scale to rule out sleep apnoea. Refer to section 8.2.3. Sleep apnoea.*	A person is **not** fit to hold an **unconditional licence**: • if the person has an established sleep apnoea syndrome (sleep apnoea on a diagnostic sleep study and moderate to severe excessive daytime sleepiness*); **or** • if the person has frequent self-reported* episodes of sleepiness or drowsiness while driving; **or** • if the person has had motor vehicle crash(es) caused by inattention or sleepiness; **or** • if the person, in the opinion of the **treating doctor**, represents a significant driving risk as a result of a sleep disorder. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by a **specialist in sleep disorders** as to whether the following criteria are met: • the person complies with treatment; **and** • the response to treatment is satisfactory. ** The treating doctor should not rely solely on subjective measures of sleepiness such as the Epworth Sleepiness Scale to rule out sleep apnoea. Refer to section 8.2.3. Sleep apnoea.*

Medical standards for licensing – sleep disorders		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Narcolepsy	A person is **not** fit to hold an **unconditional licence**: • if narcolepsy is confirmed. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by a **specialist in sleep disorders** on the response to treatment.	A person is **not** fit to hold an **unconditional licence**: • if narcolepsy is confirmed. A **conditional licence** may be considered by the driver licensing authority subject to at least **annual review**, taking into account the nature of the driving task and information provided by a **specialist in sleep disorders** as to whether the following criteria are met: • cataplexy has not been a feature in the past; **and** • medication is taken regularly; **and** • there has been an absence of symptoms for **6 months**; **and** • normal sleep latency present on MWT (on or off medication).

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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9. Substance misuse

(including alcohol, illicit drugs and prescription drug misuse)

This chapter focuses mainly on regular heavy use of, and dependence on, alcohol and other substances (including illicit and prescription or over-the-counter drugs). The standards for licensing do not address acute intoxication, which is subject to drink/drug driving laws (refer to Appendix 4. Drivers' legal BAC limits) or to policies regarding random drug and alcohol testing within workplaces. However, it is possible for a long-term dependent person to be impaired due to both chronic use and recent consumption, and these risks are factors in considering the fitness to drive of such people. More information about acute intoxication and driving can be found on driver licensing authority websites.

Chronic misuse of alcohol and other substances can lead to a syndrome of dependence, characterised by several of the following features:

- tolerance, as defined by either a need for markedly increased amounts of the substance to achieve intoxication or desired effect, or a markedly diminished effect with continued use of the same amount of substance
- withdrawal, as manifested by either the characteristic withdrawal syndrome for the substance, or the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
- the substance is often taken in larger amounts or over a longer period than was intended
- there is a persistent desire or unsuccessful efforts to cut down or control substance use
- a great deal of time is spent in activities to obtain the substance, use the substance or recover from its effects
- important social, occupational or recreational activities are given up or reduced because of substance use
- the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g. continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

9.1. Relevance to the driving task

9.1.1. Effects of long-term alcohol use and other substance use on driving[1–8]

Alcohol

In Australia, the 12-month prevalence of alcohol use disorders in 2016 was 6.1 per cent for men and 2.7 per cent for women. Alcohol dependence had a prevalence of 2.2 per cent for men and 0.8 per cent for women. Chronic heavy alcohol use carries a real risk of neurocognitive deficits relevant to driving capability including:

- short-term memory and learning impairments, which become more evident as the difficulty of the task increases
- impaired perceptual-motor speed
- impaired visual search and scanning strategies
- deficits in executive functions such as mental flexibility and problem-solving skills; planning, organising and prioritising tasks; focusing attention, sustaining focus and shifting focus from one task to another; filtering out distractions; monitoring and regulating self-action; or impulsivity.

Long-term heavy alcohol use is also associated with various end-organ pathologies that may affect the ability to drive – for example, Wernicke-Korsakoff syndrome or peripheral neuropathies experienced as numbness or paresthesia of the hands or feet. In the event of end-organ effects relevant to driving, the appropriate requirements should be applied as set out elsewhere in this publication.

Alcohol-dependent people may experience a withdrawal syndrome on cessation or significant reduction of intake, which carries some risk of generalised seizure (refer to *Acute symptomatic seizures*, page 134 and page 141), confusional states and hallucinations.

Other substances

Substances (prescribed, over-the-counter and illicit) are misused for their intoxicating, sedative or euphoric effects. Drivers under the influence of these drugs are more likely to behave in a manner incompatible with safe driving. This may involve, but not be limited to, risk taking, aggression, feelings of invulnerability, narrowed attention, altered arousal states and poor judgement.

Illicit substances are a heterogeneous group. Chronic effects of their use vary and are not as well understood as those of alcohol. Some evidence suggests cognitive impairment is associated with chronic stimulant, opioid and benzodiazepine use. Illicit substance users may be at risk of brain injury through hypoxic overdose, trauma or chronic illness.

End-organ damage, including cardiac, neurological and hepatic damage, may be associated with some forms of illicit substance use, particularly injection drug use. Cocaine and other stimulant misuse have been linked with cardiovascular pathology. In the event of end-organ effects relevant to driving, the appropriate requirements should be applied as set out elsewhere in this publication.

Withdrawal seizures may occur (refer to *Acute symptomatic seizures*, page 134 and page 141).

9.1.2. Evidence of crash risk[1,6,9–21]

Alcohol

The relationship between raised alcohol levels and crash risk is well established, and it has been estimated that driving while intoxicated contributes to 30–50 per cent of fatal crashes, 15–35 per cent of crashes involving injury and 10 per cent of crashes not involving injury.

Increasing levels of intoxication result in disproportionate increases in the risk of a motor vehicle crash. The first case-controlled study of collision risk showed that with a blood alcohol concentration (BAC) of 0.05 per cent (g/100 mL), a driver was twice as likely to be involved in a collision as someone with no alcohol; at 0.10 per cent a driver has five times the relative risk; and at 0.20, there is a 25 times greater risk of a collision.

Less experienced drivers have alcohol-related crashes at lower BACs than more experienced drivers. For example, a study of single-vehicle fatal collisions showed that a male driver in the first five years of driving is 17 times more likely to have a fatal collision if their BAC is 0.05–0.079 and risk increases exponentially with BAC. This supports zero BAC for probationary drivers as mandated in our graduated licensing system. In the case of commercial vehicle drivers, 'zero' BAC is also mandated (refer to Appendix 4. Drivers' legal BAC limits). Inexperienced drivers need to be educated about the real risks associated with drinking and driving.

People with alcohol dependency have approximately twice the risk of crash involvement as controls, possibly because they are more likely to drive while intoxicated despite prior convictions for drink driving.

Drugs[10]

There is limited evidence regarding crash risk and drug dependency. Approximately 13 per cent of fatal crashes are attributed to drug use. The risk is amplified with alcohol–drug and impairing drug–drug combinations. In an Australian study examining the odds of culpability associated with use of impairing drugs in injured drivers, one or more illicit drug present, but no alcohol, increased the odds of culpability 10-fold, while drivers with any impairing drug (but no alcohol) increased the odds 8.2-fold. The two most common illicit drugs detected were methylamphetamine and THC. Common impairing drugs included illicit drugs as well as benzodiazepines and sedating antihistamines. The most frequent substance combinations included alcohol with THC, alcohol with a benzodiazepine, alcohol with methylamphetamine, and THC with methylamphetamine.

Amphetamine-type stimulants[10,11,16,21]

Australian studies report amphetamine-type stimulants in 7.1 per cent of all fatal road crashes and a 14-fold increase in the odds of culpability for collisions causing injury. Low doses of stimulants improve reaction time and reduce fatigue but at a cost of poor road position, loss of attention to peripheral information, erratic driving, weaving, speeding, drifting off the road, increased risk taking and high-speed collisions.

Cannabis[5,10,13,14,22–24]

Cannabis use can lead to dependence syndrome, with well-documented withdrawal symptoms including restlessness, insomnia, anxiety, aggression, anorexia, muscle tremor and autonomic effects. Adult lifetime prevalence rates suggest that 9 per cent of cannabis users develop cannabis dependence, with higher rates in young people. Cannabis is the most common substance after alcohol for which admission for detoxification is sought.

Acute cannabis consumption is associated with increased road trauma. Australian studies have found the presence of cannabis (THC) in 11.1 per cent of all drivers injured in a road accident and 13.1 per cent of road fatalities. Chronic cannabis use is associated with cognitive decline, and the implications for safe driving should be carefully assessed.

On-road assessment may be required to determine fitness to drive. Practitioners should be aware of the potential use of illicit and prescription medicinal cannabis and the cumulative impairment to drive safely. For information on prescription medicinal cannabis, refer to Part A section 2.2.9. Drugs and driving.

Sedating drugs[10,11,17,25,26]

This is a heterogeneous group that includes all the drugs that cause mental clouding, sleepiness and poor responsiveness to the environment. It includes the benzodiazepines, sedating antihistamines, sedating antidepressants and narcotic analgesics. There is specific data on driving risk for some substances and none for others. Practitioners should be aware of the implications of their prescribing on the ability of patients to drive safely.

There is an increased risk of personal injury crashes among drivers using anti-anxiety drugs compared with the rest of the population. The risk is exacerbated by alcohol and other sedatives. There is a hangover effect, and a small dose of any sedative the following day can potentiate the effect. A meta-analysis of more than 500 studies showed that the degree of impairment of driving skill was directly related to the serum level of each substance. In Australian studies benzodiazepines were found in 8.2 per cent of fatalities and 12 per cent of injured drivers. In a culpability study of drivers taken to hospital for treatment after a collision, 100 per cent of drivers who had a benzodiazepine at any level with alcohol at any level were responsible for the collision.

9.1.3. Effects of alcohol or drugs on other diseases

People who are frequently intoxicated and who also suffer from certain other medical conditions are often unable to give their other medical problems the careful attention required, which has implications for safe driving.

Epilepsy

Many people with epilepsy are quite likely to have a seizure if they miss their prescribed medication even for a day or two, particularly when this omission is combined with inadequate rest, emotional turmoil, irregular meals and alcohol or other substances. Patients under treatment for any kind of epilepsy are not fit to drive any class of motor vehicle if they are frequently intoxicated.

Diabetes

People with insulin-dependent diabetes have a special problem when they are frequently intoxicated. Not only may they forget to inject their insulin at the proper time and in the proper quantity but also their food intake can get out of balance with the insulin dosage. This may result in a hypoglycaemic reaction or the slow onset of a diabetic coma.

9.2. General assessment and management guidelines

9.2.1. General considerations[27]

Chronic misuse of drugs is incompatible with safe vehicle driving. Careful individual assessment must be made of drivers who misuse alcohol or other substances (prescribed or illicit). Substance misuse may not be confined to a single drug class, and people may use multiple substances in combination. In addition, people who misuse substances may change from one substance to another. Occasional use of these drugs also requires very careful assessment. In particular, the health professional should be satisfied that the use of these drugs is not going to affect a commercial vehicle driver in the performance of their duties.

During clinical assessment, patients may understate or deny substance use for fear of consequences of disclosure. The acute and chronic cognitive effects of some substance use also contribute to difficulty in obtaining an accurate history and identification of substance use. Assessment should therefore incorporate a range of indicators of substance use in addition to self-report, including objective assessments. Urine drug screens, oral fluid testing and blood testing provide objective evidence of recent drug use but may only give a limited historical context. Hair testing can provide a longitudinal detection window measured in months through which to assess remission.

Secondary opinion from an appropriate specialist, such as an addiction medicine specialist or addiction psychiatrist, may be necessary. Further assessments and/or objective evidence from biological monitoring (e.g. supervised drug screening) by the treating doctor may be indicated, including relevant investigations, particularly in the case of commercial vehicle drivers. In particular, people with substance use disorder and mental illness, acquired brain injury or chronic pain comorbidities may have a level of complexity requiring specialist assessment. On-road practical driving assessments may assist in some cases to determine fitness to drive.

9.2.2. Alcohol dependence[28]

Screening tests may be useful for assessing alcohol dependence and other substance use disorders. For example, the Alcohol Use Disorders Identification Test (AUDIT) may be used to screen for alcohol dependence (refer to Figure 16). The total maximum score is 40. A score of eight or more indicates a strong likelihood of hazardous or harmful alcohol consumption. Referral to an appropriate specialist, such as an addiction medicine specialist or addiction psychiatrist, should be considered, particularly in the case of commercial vehicle drivers. The AUDIT relies on accurate responses to the questionnaire and should be interpreted in the context of a global assessment that includes other clinical evidence. For more information about the AUDIT questionnaire, refer to https://www.who.int/publications/i/item/audit-the-alcohol-use-disorders-identification-test-guidelines-for-use-in-primary-health-care.

Alcohol ignition interlocks are devices that prevent a car starting if the driver has been drinking. All states and territories have alcohol interlock programs where a driver who has been convicted of specified drink-driving offences is subject to a licence condition that they only drive a motor vehicle with an alcohol interlock fitted. An alcohol interlock condition may be ordered by a court as part of the sentencing or the licence restoration process, or imposed by the driver licensing authority in some circumstances. Interlocks may also be used voluntarily by drivers who are found to have alcohol dependence. A zero BAC condition can be set independently of an interlock condition or continue at the conclusion of an interlock program. Programs vary between the states and territories. For more information see Appendix 5. Alcohol interlock programs.

Figure 16. The Alcohol Use Disorders Identification Test (AUDIT) questionnaire

The Alcohol Use Disorders Identification Test (AUDIT) questionnaire[7]

Please tick the answer that is correct for you.

Scoring:

	(0)	(1)	(2)	(3)	(4)
1.	How often do you have a drink containing alcohol?				
	☐ Never (Skip to Q9)	☐ Monthly or less	☐ 2 to 4 times a month	☐ 2 to 3 times a week	☐ 4 or more times a week
2.	How many drinks containing alcohol do you have on a typical day when you are drinking?				
	☐ 1 or 2	☐ 3 or 4	☐ 5 or 6	☐ 7, 8 or 9	☐ 10 or more
3.	How often do you have six or more drinks on one occasion?				
	☐ Never	☐ Less than monthly	☐ Monthly	☐ Weekly	☐ Daily or almost daily
4.	How often during the last year have you found you were not able to stop drinking once you had started?				
	☐ Never	☐ Less than monthly	☐ Monthly	☐ Weekly	☐ Daily or almost daily
5.	How often during the last year have you failed to do what was normally expected from you because of drinking?				
	☐ Never	☐ Less than monthly	☐ Monthly	☐ Weekly	☐ Daily or almost daily
6.	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?				
	☐ Never	☐ Less than monthly	☐ Monthly	☐ Weekly	☐ Daily or almost daily
7.	How often during the last year have you had a feeling of guilt or remorse after drinking?				
	☐ Never	☐ Less than monthly	☐ Monthly	☐ Weekly	☐ Daily or almost daily
8.	How often during the last year have you been unable to remember what happened the night before because you had been drinking?				
	☐ Never	☐ Less than monthly	☐ Monthly	☐ Weekly	☐ Daily or almost daily
9.	Have you or someone else been injured as a result of your drinking?				
	☐ No	☐ Yes, but not in the last year		☐ Yes, during the last year	
10.	Has a relative or friend or a doctor or other healthcare worker been concerned about your drinking or suggested you cut down?				
	☐ No	☐ Yes, but not in the last year		☐ Yes, during the last year	

9.2.3. Opioid dependence[29–32]

Opioid dependency includes patients taking opioid medication for chronic pain. People on stable doses of opioid analgesics for chronic pain management and people taking buprenorphine or methadone for their opioid dependency may not have a higher risk of a crash than the general population, **providing the dose has been stabilised over some weeks and they are not abusing other impairing drugs.**

The risk of impairment due to unsanctioned use of opioids or other sedatives is a consideration. Short-acting opioids, particularly parenteral forms, may cause fluctuation in blood levels of opioids, which would be expected to be incompatible with safe driving. People using these agents should be referred for assessment by an appropriate specialist such as an addiction medicine specialist, addiction psychiatrist or pain medicine specialist.

Further guidance on opiate prescribing can be found from:

- the Royal Australian College of Physicians' *Prescription Opioid Policy: Improving management of chronic non-malignant pain and prevention of problems associated with prescription opioid use*[32]
- the Australian and New Zealand College of Anaesthetists and Faculty of Pain Management's *Statement regarding the use of opioid analgesics in patients with chronic non-cancer pain*[33]
- the Royal Australian College of General Practitioners' *Prescribing drugs of dependence in general practice*[29–31]
- local health agency websites.

9.2.4. Non-cooperation in cessation of driving

Should the person continue to drive despite advice to the contrary, the health professional should consider the risk posed to other road users and take reasonable measures to minimise that risk, including notifying the driver licensing authority. This is particularly relevant for commercial vehicle drivers. Refer to Part A section 3.3.1. Confidentiality, privacy and reporting to the driver licensing authority and Appendix 3.2. Legislation relating to reporting by health professionals. Refer to information about alcohol interlock programs section 9.9.2.

9.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following table. Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

In providing information to the driver licensing authority about the suitability of a driver for a conditional licence, the health professional will need to consider the driver's substance use history, response to treatment and their level of insight. For example, in the case of patients with more severe substance use problems who have had previous high rates of relapse and fluctuation in stabilisation, a longer non-driving period and/or the use of an alcohol interlock should be considered before granting a conditional licence. Similarly, a strong response to treatment and well-documented abstinence and recovery may enable provision of a conditional licence after the minimum period. Remission by self-report can be unreliable and may be confirmed by biological monitoring for presence of drugs.

Medical standards for licensing – alcohol and other substance use disorders

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Substance use disorder (For withdrawal seizures refer to acute symptomatic seizures on page 134 and page 141)	A person is **not** fit to hold an **unconditional licence**: • if there is an alcohol use disorder such as alcohol dependence or heavy frequent alcohol use; **or** • if there is a substance use disorder such as substance dependence or other substance use that is likely to impair safe driving. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by the **treating doctor** as to whether the following criteria are met: • the person is involved in a treatment program and has been in remission* for at least **1 month**; **and** • there is an absence of cognitive impairments relevant to driving; **and** • there is an absence of end-organ effects that impact on driving (as described elsewhere in this publication). The person is not fit to drive until they meet the criteria for a conditional licence. ** Remission is attained when there is abstinence from use of impairing substance(s) or where substance use has reduced in frequency to the point where it is unlikely to cause impairment. Remission by self-report can be unreliable and may be confirmed by biological monitoring for the presence of drugs.* *An alcohol interlock may form part of the approach to managing driving for alcohol-dependent people (refer to section 9.2.2. Alcohol dependence and Appendix 5).*	A person is **not** fit to hold an **unconditional licence**: • if there is an alcohol use disorder such as alcohol dependence or heavy frequent alcohol use; **or** • if there is a substance use disorder such as substance dependence or other substance use that is likely to impair safe driving. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, taking into account the nature of the driving task and information provided by an **appropriate specialist (such as an addiction medicine specialist or addiction psychiatrist)*** as to whether the following criteria are met: • the person is involved in a treatment program and has been in remission** for at least **3 months**; **and** • there is an absence of cognitive impairments relevant to driving; **and** • there is absence of end-organ effects that impact on driving (as described elsewhere in this publication). The person is not fit to drive until they meet the criteria for a conditional licence. ** Where the treating specialist considers a driver's condition to be stable, well managed, and the driver has good insight, the driver licensing authority may agree to ongoing periodic review by the person's regular GP on mutual agreement of all practitioners concerned. The initial allocation of a conditional licence must, however, be based on an assessment and information provided by the specialist.* *** Remission is attained when there is abstinence from use of impairing substance(s) or where substance use has reduced in frequency to the point where it is unlikely to cause impairment. Remission by self-report can be unreliable and may be confirmed by biological monitoring for the presence of drugs.*

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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10. Vision and eye disorders

This chapter focuses on the assessment methods, medical criteria and management approach for the two main aspects of vision – visual acuity and visual fields. It should be read in conjunction with other chapters where those conditions may affect vision (e.g, neurological conditions (section 6.3. Other neurological and neurodevelopmental conditions), diabetes (section 3. Diabetes mellitus) and with Part A section 2.2.7. Older drivers and age-related changes.

10.1. Relevance to the driving task

10.1.1. Effects of vision and eye disorders on driving[1–6]

Good vision, including visual acuity and visual fields, is essential to operating a motor vehicle. Any marked loss of visual acuity or visual fields will diminish the person's ability to drive safely, including their ability to detect another vehicle, pedestrians or warning signs. It may also increase the time for a person to perceive and react to a potentially hazardous situation.

Peripheral or side vision assists the driver to be aware of the total driving environment and is particularly important in certain common driving tasks, such as merging into a traffic stream or changing lanes, and in detecting pedestrians and vehicles to the side of the line of vision.

Vision defects can develop slowly, and drivers may be unaware of their reduced abilities, particularly in relation to peripheral vision.

10.1.2. Evidence of crash risk[1–3,7,8,15,16]

The evidence is incomplete regarding visual fields and visual acuity and crash risk. This is likely due to the many methodological reasons outlined in Part A of this publication (refer to Part A section 1.5. Development and evidence base).

Identifying the degree to which reduced visual acuity increases motor vehicle crash risk is challenging. The evidence for visual acuity impairment is generally limited to drivers whose visual acuity already meets licensing standards, limiting the ability to determine whether alternative cut-points are more appropriate. While it is generally agreed that adequate visual fields are important for safe driving, the actual cut-off value that should be set remains unclear.

Most research suggests there is no association between crash risk and colour vision. While there is evidence that people with red-colour-deficient vision have difficulty in detecting red lights and stopping in laboratory and on-road testing, significant improvements in road engineering mean that people with red-colour deficiency may largely compensate for their deficiency while driving.

10.2. General assessment and management guidelines

Decline in vision is associated with normal ageing and is therefore an important consideration for fitness to drive in the general care of older people, along with consideration of cognition and sensory-motor function (refer to Part A section 2.2.7. Older drivers and age-related changes).

Progressive eye conditions such as cataracts, glaucoma and macular degeneration are also more common in older people. Once diagnosed, these conditions require regular monitoring in relation to driving, including through conditional licences as appropriate (refer to section 10.2.4. Progressive eye conditions). Regular monitoring is also required for conditions such as diabetes to screen for and manage end-organ effects (retinopathy) (refer to section 3.2.3. Comorbidities and end-organ complications).

For drivers with neurological conditions such as stroke, vision is one of a number of functional outcomes that will be addressed as part of an overall assessment of fitness to drive, and findings will need to be integrated as part of this overall assessment (refer to section 6.3. Other neurological and neurodevelopmental conditions).

10.2.1. Visual acuity[3–6]

For the purposes of this publication, visual acuity is defined as a person's clarity of vision with or without glasses or contact lenses. Where a person does not meet the visual acuity standard at initial assessment, they may be referred for further assessment by an optometrist or ophthalmologist.

Assessment method

Visual acuity should be measured for each eye separately and without optical correction. If optical correction is needed, vision should be retested with appropriate corrective lenses. For use of orthokeratology lenses to correct visual acuity, refer to section 10.2.7. Orthokeratology therapy.

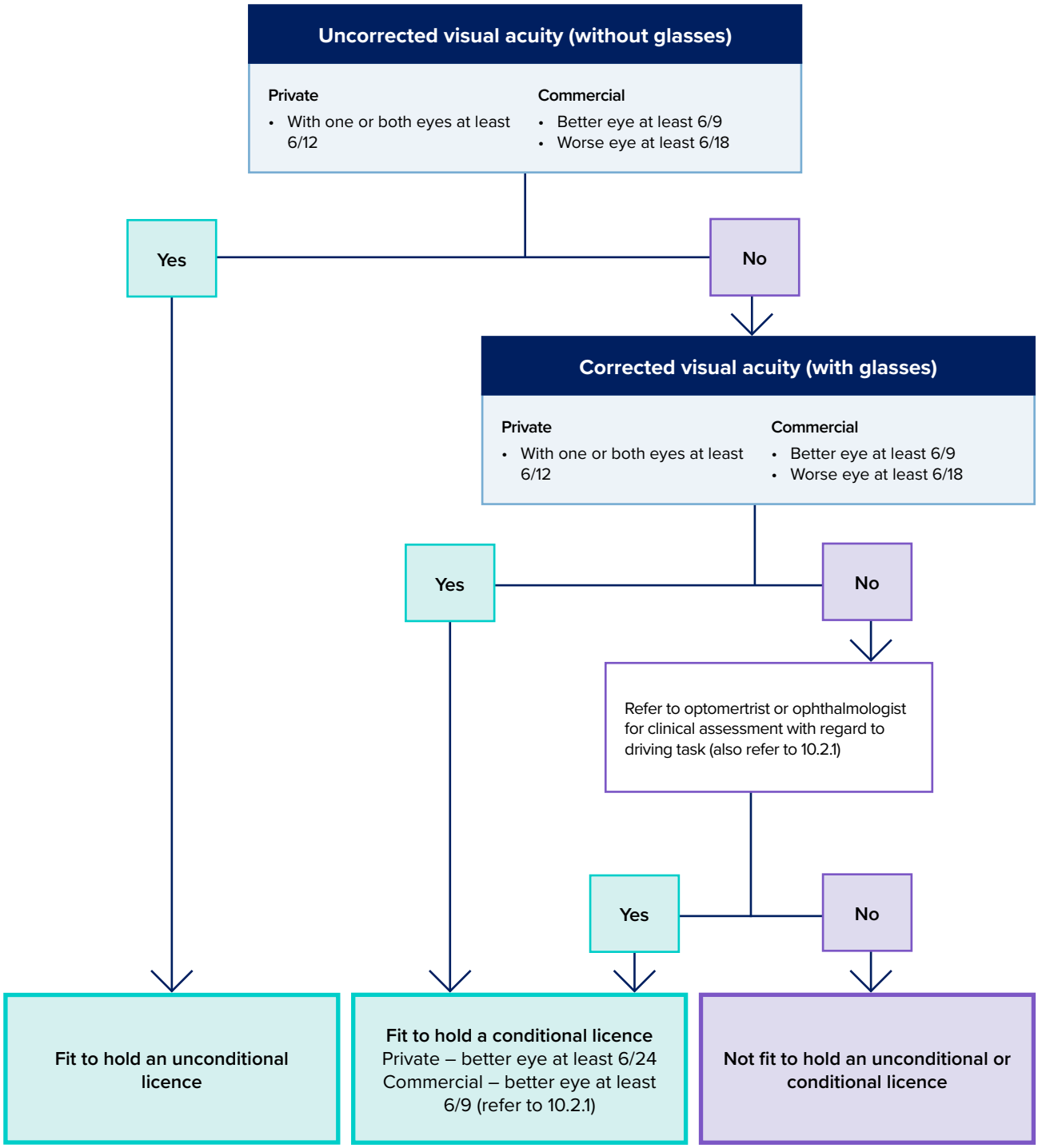
Acuity should be tested using a standard visual acuity chart (Snellen or LogMAR chart or equivalent) with five letters on the 6/12 line. Standard charts should be placed six metres from the person tested; otherwise, a reverse chart can be used and viewed through a mirror from a distance of three metres. Other calibrated charts can be used at a minimum distance of three metres. More than two errors in reading the letters of any line is regarded as a failure to read that line. Refer to Figure 17 for a management flow chart.

In the case of a private vehicle driver, if the person's visual acuity is just below that required by the standard but the person is otherwise alert, has normal reaction times and good physical coordination, an optometrist or ophthalmologist can recommend the granting of a conditional licence. The use of contrast sensitivity or other specialised tests may help in the assessment. However, a driver licence will not be issued when visual acuity in the better eye is worse than 6/24 for private vehicle drivers.

There is also some flexibility for commercial vehicle drivers depending on the driving task, providing the visual acuity in the driver's better eye (with or without corrective lenses) is 6/9 or better.

Restrictions on driving (conditional licence) may be advised; for example, where glare is a marked problem, no-night driving may be recommended. Refer to Part A section 4.4. Conditional licences.

Figure 17. Visual acuity requirements for private and commercial vehicle drivers



10.2.2. Visual fields[3–6,8–13]

For the purposes of this publication, visual fields are defined as a measure of the extent of peripheral (side) vision. Normal visual field is: 60 degrees nasally, 100 degrees temporally, 75 degrees inferiorly and 60 degrees superiorly. The binocular field extends the horizontal extent from 160 to 200 degrees, with the central 120 degrees overlapping and providing the potential for stereopsis.

Visual fields may be reduced due to a range of neurological conditions (e.g. stroke, multiple sclerosis) as well by ocular diseases (e.g. glaucoma), or injuries, resulting in hemionopia, quadrantanopia or monocularity.

Peripheral vision assists the driver to be aware of the total driving environment. Once alerted, the central fovea area is moved to identify the importance of the information. Therefore, peripheral vision loss that is incomplete will still allow awareness; this includes small areas of loss and patchy loss. Additionally, affected drivers can adapt to the defect by scanning regularly and effectively and can have good awareness. Patients with visual field defects who have full intellectual/cognitive capacity are more able to adapt, but those with such impairments will have decreased awareness and are therefore not safe to drive.

A longstanding field defect, such as from childhood, may lead to visual adaptation. Such defects need to be assessed by an optometrist or ophthalmologist for a conditional licence to be considered. They should be managed as an exceptional case to the standard, with consideration for duration and evidence of visual adaptation, whether the location of the defect is an area that may already be blocked by the car door on the passenger side (i.e. the inferior field on the left side without central field loss), driver safety record and the nature of the driving task.

Assessment method

If there is no clinical indication of a visual field impairment or a progressive eye condition, then it is satisfactory to screen for defect by confrontation. Confrontation is an inexact test. Any person who has, or is suspected of having, a visual field defect should have a formal perimetry-based assessment.

Monocular automated static perimetry is the minimum baseline standard for visual field assessments. If monocular automated static perimetry shows no visual field defect, this information is sufficient to confirm that the standard is met.

Subjects with any significant field defect or a progressive eye condition require a binocular Esterman visual field for assessment. This is classically done on a Humphrey visual field analyser, but any machine that can be shown to be equivalent is accepted (e.g. Medmont binocular VF printed off in level map mode). The treating optometrist or ophthalmologist can determine whether it is appropriate for the person to wear their normal corrective lenses while undergoing testing. Fixation monitoring must be performed and recorded on the test. Alternative devices must have the ability to monitor fixation and to stimulate the same spots as the standard binocular Esterman. For an Esterman binocular chart to be considered reliable for licensing, the false-positive score must be no more than 20 per cent.

Horizontal extent of the visual field

In the case of a private vehicle driver, if the horizontal extension of a person's visual fields are less than 110 degrees but greater or equal to 90 degrees, an optometrist or ophthalmologist may support the granting of a conditional licence by the driver licensing authority. The extent is measured on the Esterman from the last seen point to the next seen point. There is no flexibility in this regard for commercial vehicle drivers.

A single cluster of up to three adjoining missed points, unattached to any other area of defect, lying on or across the horizontal meridian will be disregarded when assessing the horizontal extension of the visual field. A vertical defect of only a single point width but of any length, unattached to any other area of defect, that touches or cuts through the horizontal meridian may be disregarded. There should be no significant defect in the binocular field that encroaches within 20 degrees of fixation above or below the horizontal meridian. This means that homonymous or bitemporal defects that come close to fixation, whether hemianopic or quadrantanopic, are not normally accepted as safe for driving.

Central field loss

Scattered single missed points or a single cluster of up to three adjoining points is acceptable central field loss for a person to hold an unconditional licence. **A significant or unacceptable central field loss is defined as any of the following:**

- a cluster of four or more adjoining points that is either completely or partly within the central 20-degree area
- loss consisting of both a single cluster of three adjoining missed points up to and including 20 degrees from fixation, and any additional separate missed point(s) within the central 20-degree area
- any central loss that is an extension of a hemianopia or quadrantanopia of size greater than three missed points.

Methods of measuring visual fields are limited in their ability to resemble the demands of the real-world driving environment where drivers are free to move their eyes as required and must sustain their visual function in variable conditions. Additional factors to be considered by the driver licensing authority in assessing patients with defects in visual fields therefore include, but are not limited to, the following:

- kinetic fields conducted on a Goldman
- binocular Esterman visual fields conducted without fixation monitoring, often referred to as a roving Esterman (two consecutive tests must be performed with no more than one false-positive allowed) – the test should be in the numeric field format when it is printed out or sent for an opinion
- contrast sensitivity and glare susceptibility
- medical history; duration and prognosis; if the condition is progressive; rate of progression/deterioration; effectiveness of treatment/management
- driving record before and since the occurrence of the defect
- the nature of the driving task – for example, type of vehicle (truck, bus, etc.), roads and distances to be travelled concomitant medical conditions such as cognitive impairment or impaired rotation of the neck.

There is no flexibility in this regard for commercial vehicle drivers.

Monocular vision (one-eyed driver)

Monocular drivers have a reduction of visual fields due to the nose obstructing the medial visual field. They also have no stereoscopic vision and may have other deficits in visual functions.

For private vehicle drivers, a conditional licence may be considered by the driver licensing authority if the horizontal visual field is 110 degrees and the visual acuity is satisfactory in the better eye. People with monocular vision are generally not fit to drive a commercial vehicle. A conditional licence may be considered by the driver licensing authority if the horizontal visual field is 140 degrees, the visual acuity in the better eye is satisfactory, there is no other visual field loss that is likely to impede driving and an ophthalmologist/optometrist assesses that the person may be safe to drive after consideration of the above factors. The better eye must be reviewed at least every two years.

If monocular automated static perimetry is undertaken on patients without symptoms, family history or risk factors for visual field loss, and shows no indication of any visual field concerns, this information may be sufficient to confirm that the standard is met. If monocular testing suggests a field defect, or if the patient has a progressive eye condition, and/or the patient has any other symptoms or signs that indicate a field defect, then binocular testing should be conducted using the Esterman binocular field test or an Esterman-equivalent test. Alternative devices must have the ability to monitor fixation and to stimulate the same spots as the standard binocular Esterman.

Sudden loss of unilateral vision

A person who has lost an eye or most of the vision in an eye on a long-term basis has to adapt to their new visual circumstances and re-establish depth perception. They should therefore be advised not to drive for an appropriate period after the onset of their sudden loss of vision (usually three months). They should notify the driver licensing authority and be assessed according to the relevant visual field standard.

10.2.3. Diplopia

People suffering from all but minor forms of diplopia are generally not fit to drive. Any person who reports or is suspected of experiencing diplopia within 20 degrees from central fixation should be referred for assessment by an optometrist or ophthalmologist. For diplopia managed with an occluder, a three-month non-driving period applies in order to re-establish depth perception.

10.2.4. Progressive eye conditions[3]

The patient should be advised appropriately when a progressive eye condition is diagnosed that may result in future restrictions on driving. It is important to give the patient as much lead time as possible to prepare for changes that may later be required (e.g. adaptation to alternate transport and/or engaging blindness and low vision services). Refer to Part A section 2.2.6. Congenital conditions, disability and driving and 2.2.7. Older drivers and age-related changes.

People with progressive eye conditions such as cataract, glaucoma, optic neuropathy, diabetic retinopathy, macular degeneration or retinitis pigmentosa should be monitored regularly and should be advised in advance about the potential future impact on their driving ability.

10.2.5. Congenital and acquired nystagmus

Nystagmus may reduce visual acuity. Drivers with nystagmus must meet the visual acuity standard. Any underlying condition must be fully assessed to ensure there is no other issue that relates to fitness to drive. Those who have congenital nystagmus may have developed coping strategies that are compatible with safe driving and should be individually assessed by an appropriate specialist.

10.2.6. Colour vision

There is not a colour vision standard for drivers, either private or commercial. Doctors, optometrists and ophthalmologist should, however, advise drivers who have a significant colour vision deficiency about how this may affect their responsiveness to signal lights and the need to adapt their driving accordingly. Note, this standard applies only to driving within normal road rules and conditions. A standard requiring colour vision may be justified based on risk assessment for particular driving tasks.

10.2.7. Orthokeratology therapy[14]

Orthokeratology involves the therapeutic use of rigid gas-permeable contact lenses worn overnight to reshape the cornea of the eye. This provides effective correction of visual refractive error (once the lenses are removed) that can last at least a full day. The therapeutic effect is temporary and so the lenses must be worn regularly to maintain the best visual outcomes.

A conditional licence can be considered for private and commercial vehicle drivers provided the visual acuity standard is met with orthokeratology therapy and the lenses are worn as recommended by an optometrist or ophthalmologist. The driver may drive without their normal correcting lenses (e.g. glasses or contact lens) provided that the visual acuity standard is maintained with the support of orthokeratology therapy. If the driver cannot meet or maintain the standard using orthokeratology therapy, they must drive with correcting lenses that enable them to meet the standard.

10.2.8. Telescopic lenses (bioptic telescopes)

> The driver licensing authority may refuse a licence if the visual acuity standards are not met without the use of a bioptic telescope (refer to section 10.2.1. Visual acuity). People seeking to use a bioptic device for driving should first contact their driver licensing authority and check whether these devices are an accepted means to meet the standards. Refer to Appendix 9 for driver licensing authority contact details.

Bioptic telescopes are devices used to compensate for reduced visual acuity. They are miniature telescopes typically mounted on the upper part of a person's glasses. Bioptics are used momentarily and intermittently when driving, the majority of which occurs at the corrected visual acuity provided by the person's glasses. The person drops their chin slightly to view through the telescope for magnification, then lifts their chin to view through their standard corrective lens.

At present, there is insufficient information from human factors and safety research of drivers using these devices to set standards for bioptics. As such, and due to the increased risk associated with commercial vehicle driving (refer to Part A section 4.1. Medical standards for private and commercial vehicle drivers), these devices should not be used to meet the visual acuity standards for commercial vehicles. For private vehicle drivers, the driver licensing authority may consider information from an

assessment performed by an ophthalmologist or optometrist when making its licensing decision.

10.2.9. Practical driver assessments

A practical driver assessment is not considered to be a safe or reliable method of assessing the effects of disorders of vision on driving, especially the visual fields, because the driver's response to emergency situations or various environmental conditions cannot be determined. Information about adaptation to visual field defects can be gained from visual field tests such as the Esterman.

A practical driver assessment may be helpful in assessing the ability to process visual information (refer to Part A section 2.3.1. Practical driver assessments).

10.2.10. Exceptional cases

In unusual circumstances, cases may be referred by the driver licensing authority for further medical specialist opinion (refer to Part A section 3.3.7. Role of independent experts/panels).

10.3. Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the following tables.

Medical standards for licensing – vision and eye disorders

Health professionals should familiarise themselves with the information in this chapter and the tabulated standards before assessing a person's fitness to drive.

Condition	Private standards (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	Commercial standards (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Visual acuity Refer to section 10.2.1. Visual acuity and Figure 17.	A person is **not** fit to hold an **unconditional licence**: • if the person's uncorrected visual acuity in the better eye or with both eyes together is worse than 6/12. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review** if the standard is met with corrective lenses*. Some discretion is allowed in application of the standard by the treating optometrist or ophthalmologist. However, a driver licence **will not** be issued when visual acuity in the better eye is worse than 6/24. ** Refer to section 10.2.7. Orthokeratology therapy for information on meeting the standard using orthokeratology therapy.*	A person is **not** fit to hold an **unconditional licence**: • if the person's uncorrected visual acuity is worse than 6/9 in the better eye; **or** • if the person's uncorrected visual acuity is worse than 6/18 in either eye. A **conditional licence** may be considered by the driver licensing authority subject to **periodic review** if the standard is met with corrective lenses*. If the person's vision is worse than 6/18 in the worse eye, a **conditional licence** may be considered by the driver licensing authority subject to **periodic review**, provided the visual acuity in the better eye is 6/9 (with or without corrective lenses*) according to the **treating optometrist or ophthalmologist**. The driver licensing authority will take into account: • the nature of the driving task; **and** • the nature of any underlying disorder; **and** • any other restriction advised by the optometrist or ophthalmologist. ** Refer to section 10.2.7. Orthokeratology therapy for information on meeting the standard using orthokeratology therapy.*

Medical standards for licensing – vision and eye disorders		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Visual fields Refer to section 10.2.2. Visual fields.	A person is **not** fit to hold an **unconditional licence**: • if the binocular visual field does not have a horizontal extent of at least 110 degrees within 10 degrees above and below the horizontal midline; **or** • if there is any significant visual field loss (scotoma) within a central radius of 20 degrees of the foveal fixation or other scotoma likely to impede driving performance; **or** • if there is any significant visual field loss (scotoma) with more than four contiguous spots within a 20-degree radius from fixation. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating optometrist or ophthalmologist**.	A person is **not** fit to hold an **unconditional licence**: • if the person has any visual field defect. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating optometrist or ophthalmologist** as to whether the following criteria are met: • the binocular visual field has an extent of at least 140 degrees within 10 degrees above and below the horizontal midline; **and** • the person has no significant visual field loss (scotoma, hemianopia, quadrantanopia) that is likely to impede driving performance; **and** • the visual field loss is static and unlikely to progress rapidly.
Monocular vision Refer to section 10.2.2. Visual fields.	A person is **not** fit to hold an **unconditional licence**: • if the person is monocular. A **conditional licence** may be considered by the driver licensing authority subject to **2-yearly review**, taking into account the nature of the driving task and information provided by the **treating optometrist or ophthalmologist** as to whether the following criteria are met: • the visual acuity in the remaining eye is 6/12 or better, with or without correction; **and** • the visual field in the remaining eye has a horizontal extent of at least 110 degrees within 10 degrees above and below the horizontal midline.	A person is **not** fit to hold an **unconditional licence**: • if the person is monocular. A **conditional licence** may be considered by the driver licensing authority subject to **2-yearly review**, taking into account the nature of the driving task and information provided by the **treating optometrist or ophthalmologist**, as to whether the following criteria are met: • the visual acuity in the remaining eye is 6/9 or better, with or without correction; **and** • the visual field in the remaining eye has a horizontal extent of at least 140 degrees within 10 degrees above and below the horizontal midline; **and** • there is no other significant visual field loss that is likely to impede driving performance.

Medical standards for licensing – vision and eye disorders		
Condition	**Private standards** (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or requiring a dangerous goods driver licence – refer to definition in **Table 3**)	**Commercial standards** (Drivers of heavy vehicles, public passenger vehicles or requiring a dangerous goods driver licence – refer to definition in **Table 3**)
Diplopia Refer to section 10.2.3. Diplopia.	A person is **not** fit to hold an **unconditional licence**: • if the person experiences any diplopia (other than physiological diplopia) within 20 degrees from central fixation. A **conditional licence** may be considered by the driver licensing authority subject to **annual review**, taking into account the nature of the driving task and information provided by the **treating optometrist or ophthalmologist** as to whether the following criteria are met: • the condition is managed satisfactorily with corrective lenses or an occluder; **and** • the person meets other criteria as per this section, including visual fields. The following licence condition may apply if corrective lenses or an occluder prevents the occurrence of diplopia: • Corrective lenses or an occluder must be worn while driving. A 3-month non-driving period applies for use of occluders, in order to re-establish depth perception.	A person is **not** fit to hold an **unconditional licence** or a **conditional licence**: • if the person experiences any diplopia (other than physiological diplopia) within 20 degrees from central fixation.

IMPORTANT: The medical standards and management guidelines contained in this chapter should be read in conjunction with the general information contained in Part A of this publication. Practitioners should give consideration to the following:

Licensing responsibility

The responsibility for issuing, renewing, suspending or cancelling a person's driver licence (including a conditional licence) lies ultimately with the driver licensing authority.

Licensing decisions are based on a full consideration of relevant factors relating to health and driving performance.

Conditional licences

For a conditional licence to be issued, the health professional must provide to the driver licensing authority details of the medical criteria not met, evidence of the medical criteria met, as well as the proposed conditions and monitoring requirements.

The presence of other medical conditions

While a person may meet individual disease criteria, concurrent medical conditions may combine to affect fitness to drive – for example, hearing, visual or cognitive impairment (refer to Part A section 2.2.7. Older drivers and age-related changes and section 2.2.8. Multiple medical conditions).

The nature of the driving task

The driver licensing authority will take into consideration the nature of the driving task as well as the medical condition, particularly when granting a conditional licence. For example, the licence status of a farmer requiring a commercial vehicle licence for the occasional use of a heavy vehicle may be quite different from that of an interstate multiple combination vehicle driver. The examining health professional should bear this in mind when examining a person and when providing advice to the driver licensing authority.

Reporting responsibilities

Patients should be made aware of the effects of their condition on driving and should be advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. The health professional may themselves advise the driver licensing authority as the situation requires (refer to section 3.3 and step 6).

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PART C.
Appendices

Appendix 1. Regulatory requirements for driver testing

Drivers in most states and territories must make a medical self-declaration in relation to their fitness to drive at licence application and renewal. The information obtained may result in a requirement for a medical assessment or refusal of the application. In addition, each state and territory has specific requirements for medical examinations or road testing, depending on the driver's age or the type of vehicle being driven, such as heavy vehicles, public passenger vehicles and dangerous goods vehicles. There are also specific requirements for drivers and operating a vehicle as a driver instructor. Note that various agencies are involved in overseeing the requirements for different vehicle types, and these agencies generally cooperate in this regard to support road safety.

Note: All review requirements may be amended on medical advice or on self-declaration or at the request of the licensing authority. Refer to your state or territory driver licensing authority or other responsible agency for current requirements (see Appendix 9. Driver licensing authority contacts).

Commercial vehicle drivers accredited under Basic Fatigue Management (BFM) and Advanced Fatigue Management (AFM) have additional medical assessment requirements. Under these schemes, medical examinations are to be conducted, as a minimum, once every three years for drivers aged 49 or under, and yearly for drivers aged 50 or over and must assess sleep disorders.

Note: Not all states/territories participate in these fatigue management schemes (currently the Australian Capital Territory, Northern Territory and Western Australia do not participate).

State or territory	Vision test	Medical assessment	Road test
Australian Capital Territory	**Private vehicle drivers**		
	A vision test for all drivers on initial licence; at ages 50, 60, 65, 70 and 75, and annually thereafter.	A medical assessment for all licence classes at age 75 years, and annually thereafter.	No prescribed period, or age.
	Commercial vehicle drivers		
	Heavy vehicle drivers (class MR and above): a vision test on initial application; when upgrading to medium rigid (class MR); at ages 50, 60, 65, 70, 75 and annually thereafter.	Heavy vehicle drivers (class MR and above): a commercial medical assessment at age 75 years and annually thereafter.	Heavy vehicle drivers (class MR and above): an initial test on application or when upgrading to MR class or above. No prescribed period or age thereafter, unless declared or reported.

State or territory	Vision test	Medical assessment	Road test
Australian Capital Territory (cont'd)	**Commercial vehicle drivers**		
	Public passenger vehicle drivers (H, M, T, W, D): a vision test on initial application, then 5-yearly to age 70, then annually thereafter. Public passenger vehicle drivers (O): a vision test on initial application, then annually thereafter. In all cases additional or more frequent health assessments may be required if a condition is reported.	Public passenger vehicle drivers (H, M, T, W, D): a commercial medical assessment on initial application, then five- yearly to age 70, then annually thereafter. Public passenger vehicle drivers (O): a commercial medical assessment on initial application, then annually thereafter. In all cases, additional or more frequent health assessments may be required if a condition is reported.	Public passenger vehicle drivers (H, M, O, T, W, D): at age 70 and annually thereafter.
	Dangerous goods vehicle drivers: a vision test on initial application, then every 5 years.	Dangerous goods vehicle drivers: a commercial medical assessment on initial application, then every 5 years.	Dangerous goods vehicle drivers: no special requirements.
	Driving instructors: a vision test on initial application, then every 5 years.	Driving instructors: a commercial medical assessment on initial application, then every 5 years.	Driving instructors: no prescribed period or age after initial test for licensing.
New South Wales	**Private vehicle drivers**		
	Vision test for all drivers on initial application. All car and rider licence holders under 45 years of age have an eyesight test every 10 years. All car and rider licence holders 45 years of age or older have an eyesight test every 5 years. Drivers 75 years or older require an annual eyesight test.	Medical assessment for all licence classes at age 75 years and annually thereafter.	Road test required every 2 years for all car drivers (class C) and drivers of motorcycles (class R) from 85 years of age. Annual driving test for heavy vehicle drivers with a light rigid (LR) to heavy combination (HC) from 80 years of age. A road test may be required as a result of a doctor's or police recommendation.
	Commercial vehicle drivers		
	Vision test for all drivers on initial application.	Medical assessment for all licence classes at 75 years of age and annually thereafter.	Annual road test required for heavy vehicle drivers (LR, MR, HR and HC) from 80 years of age.

State or territory	Vision test	Medical assessment	Road test
New South Wales (cont'd)	**Commercial vehicle drivers**		
	Multiple combination vehicle (road train) drivers (class MC): vision test with medical assessment on initial application and then at age 21 and every 10 years up to age 40, then every 5 years until age 60, then every 2 years until age 70; annually thereafter.	Multiple combination vehicle (road train) drivers (class MC): medical assessment on initial application and then at age 21 and every 10 years up to age 40, then every 5 years until age 60, then every 2 years until age 70; annually thereafter.	Multiple combination vehicle (road train) drivers (class MC): road test at 70 years and annually thereafter.
	Public passenger vehicle drivers (buses): vision test on initial application and then every 3 years until the age of 60 years; annually thereafter.	Public passenger vehicle drivers (buses): medical assessment on initial application and then every 3 years until the age of 60 years; annually thereafter.	Public passenger vehicle drivers (buses): road test at age 80 years.
	Dangerous good vehicle drivers: vision test on initial application, then every 5 years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every 5 years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on initial application; thereafter in line with driver licence class held.	Driving instructors: medical assessment on initial application; thereafter in line with driver licence class held.	Driving instructors: on initial application; thereafter in line with driver licence class held.
Northern Territory	**Private vehicle drivers**		
	Vision test for all drivers on initial application.	Medical assessment only when condition notified by a health professional or driver.	Road test only when recommended by a health professional.
	Commercial vehicle drivers		
	Vision test on initial application.	Medical assessment only when a condition is reported by a health professional or driver.	Only if recommended by a health professional.
	Public passenger vehicle drivers: as above.	Public passenger vehicle drivers: medical assessment on initial application, then 5-yearly or sooner if a condition is reported.	Public passenger vehicle drivers: road test only if recommended by a health professional.

State or territory	Vision test	Medical assessment	Road test
Northern Territory (cont'd)	**Commercial vehicle drivers**		
	Dangerous good vehicle drivers: vision test on initial application, then every 5 years.	Dangerous goods vehicle drivers: medical assessment on initial application, then 5-yearly thereafter.	Dangerous goods vehicle drivers: no specific requirements.
	Driving instructors: as above.	Driving instructors: medical assessment on initial application, then 5-yearly or sooner if a condition is reported.	Driving instructors: road test only if recommended by a health professional.
Queensland	**Private vehicle drivers**		
	A vision test, performed by a health professional, and a medical certificate verifying the outcome of the test is required if the applicant declares a vision or eye disorder or if required by the chief executive. Vision tests are not performed by departmental staff.	A person must obtain, carry and drive in accordance with a current medical certificate if: • they have a mental or physical incapacity that may affect their ability to drive safely; or • they are 75 years of age or older. Currency of the medical certificate is determined by the health professional. Medical certificates issued to drivers 75 years or older have a maximum validity of 1 year.	Road test required on application.
	Commercial vehicle drivers		
	Heavy vehicle drivers: a vision test, performed by a health professional, and a medical certificate verifying the outcome of the test is required if the applicant declares a vision or eye disorder or if required by the chief executive. Vision tests are not performed by departmental staff.	Heavy vehicle drivers: a person must obtain, carry and drive in accordance with a current medial certificate if: • they have a mental or physical incapacity that may affect their ability to drive safely; or • they are 75 years of age or older. Currency of the medical certificate is determined by the health professional. Medical certificates issued to drivers 75 years or older have a maximum validity of 1 year.	Heavy vehicle drivers: road test required on application.

State or territory	Vision test	Medical assessment	Road test
Queensland (cont'd)	Public passenger vehicle drivers: a vision test, performed by a health professional, is required every 5 years (as part of the prescribed medical assessment), or more frequently if required by a health professional. Vision tests are not performed by departmental staff.	Public passenger vehicle drivers: a medical assessment is required every 5 years, or more frequently if required by a health professional. A driver 75 years of age or older is required to obtain, carry and drive in accordance with a current medical certificate.	Public passenger vehicle drivers: no prescribed period or age, unless declared or reported.
	Dangerous good vehicle drivers: a vision test, performed by a health professional, is required on initial application, then every 3 years as part of the prescribed medical assessment), or more frequently if required by a health professional. Vision tests are not performed by departmental staff.	Dangerous goods vehicle drivers: a medical assessment is required on initial application, then every 3 years, or more frequently if required by a health professional. A driver 75 years of age or older is required to obtain, carry and drive in accordance with a current medical certificate.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: no vision test required unless the applicant declares a vision or eye disorder or if required by the chief executive. Vision tests are not performed by departmental staff.	Driving instructors: no medical assessment required unless the person has a mental or physical incapacity that may affect their ability to drive safely. A driver 75 years of age or older is required to obtain, carry and drive in accordance with a current medical certificate.	Driving instructors: no prescribed period or age, unless declared or reported.
South Australia	**Private vehicle drivers**		
	Vision test yearly from 70 years of age for holders of licence classes other than C or if declared or reported.	Medical assessment required yearly from 70 years of age for holders of licence classes other than C.	Road test annually from age 85 for licence classes other than C.

State or territory	Vision test	Medical assessment	Road test
South Australia (cont'd)	**Commercial vehicle drivers**		
	Heavy vehicle drivers: vision test annually from 70 years of age or with prescribed medical examinations.	Heavy vehicle drivers: medical assessment annually from 70 years of age for all licence holders unless prescribed otherwise (refer below). Multiple combination vehicle drivers (class MC) operating south of Port Augusta: medical assessment every 3 years up to 49 years of age, then annually.	Heavy vehicle drivers: road test annually from age 85.
	Public passenger vehicle drivers: vision test with medical assessment every 3 years up to age 70 years, then annually thereafter.	Public passenger vehicle drivers: medical assessment every 3 years up to age 70 years, then annually thereafter.	Public passenger vehicle drivers: no prescribed period or age, unless declared or reported.
	Dangerous good vehicle drivers: vision test on initial application, then every 3 years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every 3 years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on licence application and renewal.	Driving instructors: medical assessment on licence application and renewal.	Driving instructors: no prescribed period or age, unless declared or reported.
Tasmania	**Private vehicle drivers**		
	Vision test required on initial application.	No prescribed period or age but may occur if a medical condition or concern is declared or reported.	No prescribed period or age but may occur if a medical condition or concern is declared or reported.
	Commercial vehicle drivers		
	Multiple combination vehicle drivers (class MC): vision test required on initial application (as part of medical assessment).	Multiple combination vehicle drivers (class MC): medical assessment on initial application.	Heavy vehicle drivers: road test or training course on initial application; no tests/ courses are required thereafter.

State or territory	Vision test	Medical assessment	Road test
Tasmania (cont'd)	**Commercial vehicle drivers**		
	Public passenger vehicle drivers: vision test on initial application and then as part of required medical assessments (refer to next column).	Public passenger vehicle drivers (Ancillary Certificate Public Passenger Vehicles): medical assessment on initial application, then every 3 years up to age 65, then annually. (ACPPVs are further categorised: taxi or other).	Public passenger vehicle drivers (ACPPV): no prescribed period or age, unless declared or reported. (ACPPVs are further categorised: taxi or other).
	Dangerous goods vehicle drivers: vision test on initial application, then every licence renewal period.	Dangerous goods vehicle drivers: medical assessment on initial application, then every licence renewal period.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on initial application and then as part of required medical assessments (refer to next column).	Driving instructors: medical assessment on initial application, then every 3 years until age 65 years, then annually.	Driving instructors: training course on initial application.
Victoria	**Private vehicle drivers**		
	Vision test for all drivers on initial application and subsequently if a concern is declared or reported.	No prescribed period or age but may occur if a concern is declared or reported.	No prescribed period or age but may occur if a concern is declared or reported.
	Commercial vehicle drivers		
	Heavy vehicle drivers: vision test on initial application. Otherwise no specified period, unless declared or reported.	Heavy vehicle drivers: no prescribed period or age, unless declared or reported.	Heavy vehicle drivers: no prescribed period or age, unless declared or reported.
	Public passenger vehicle drivers (taxis, bus): vision test with medical assessment every 3 years unless a medical practitioner advises shorter review periods. If a driver is changed from a 3-year to a 12-month accreditation, ongoing annual review is generally required.	Public passenger vehicle drivers (taxis, bus): medical assessment every 3 years unless a medical practitioner advises shorter review periods. If a driver is changed from a 3-year to a 12-month accreditation, ongoing annual review is generally required.	Public passenger vehicle drivers (taxis, bus): no prescribed period or age, unless declared or reported.
	Dangerous good vehicle drivers: vision test on initial application, then every 5 years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every 5 years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.

State or territory	Vision test	Medical assessment	Road test
Victoria (cont'd)	**Commercial vehicle drivers**		
	Driving instructors: vision test on licence application then every 3 years unless a medical practitioner advises shorter review periods. If a driver is changed from a 3-year to a 12-month accreditation, ongoing annual review is generally required.	Driving instructors: medical assessment on application then every 3 years unless a medical practitioner advises shorter review periods. If a driver is changed from a 3-year to a 12-month accreditation, ongoing annual review is generally required.	Driving instructors: no prescribed period or age, unless declared or reported.
Western Australia	**Private vehicle drivers**		
	Vision test required on initial application then yearly from 80 years of age (as part of required medical assessment), or as required depending on the condition declared or reported.	Annually from 80 years of age, unless a medical condition requires an earlier assessment.	Road test annually from age 85 for licence classes other than C and R, unless a medical condition requires an earlier assessment.
	Commercial vehicle drivers		
	Heavy vehicle drivers (class MR and above): vision test required on initial application then yearly from 80 years of age (as part of required medical assessment) or as required depending on the condition declared or reported.	Heavy vehicle drivers (class MR and above): annually from 80 years of age, unless a medical condition requires an earlier assessment.	Heavy vehicle drivers (class MR and above): road test at 85 years of age, then annually unless a medical condition requires an earlier assessment.
	Public passenger vehicle drivers: vision test on initial application and then when applying for an additional class, then every 5 years until age 45, then every 2 years until age 65, then annually.	Public passenger vehicle drivers: medical assessment on initial application, then every 5 years.	Public passenger vehicle drivers: no prescribed period or age, unless declared or reported.
	Dangerous good vehicle drivers: vision test on initial application, then every 5 years.	Dangerous goods vehicle drivers: medical assessment on initial application, then every 5 years.	Dangerous goods vehicle drivers: no prescribed period or age, unless declared or reported.
	Driving instructors: vision test on initial application and when applying for an additional class, then every 5 years until age 45, then every 2 years until age 65, then annually from age 65.	Driving instructors: medical assessment on initial application, then every 5 years.	Driving instructors: practical driving and instructional technique assessment every 3 years unless exempted.

Appendix 2. Forms

Appendix 2.1. Medical report form

The driver licensing authority has a legal responsibility to ensure all drivers have the appropriate skills and ability, and are medically fit to hold a driver licence. To meet this responsibility, legislation gives the driver licensing authority the authority to ask any motor vehicle licence holder or applicant to provide medical evidence of their suitability to drive and/or to undergo a driver assessment.

This is facilitated by a medical report. The relevant driver licensing authority provides the medical report form to the driver, who will present it to the health professional for completion at the time of the examination. This form is the key communication between health professionals and driver licensing authorities. It should be completed with details of any medical criteria not met, as well as details of recommended conditions and monitoring requirements for a conditional licence. Medical information that is not relevant to the patient's fitness to drive should not be included on this form for privacy reasons.

The forms used by each state or territory vary; however, they will generally include the information outlined below. Electronic and online forms are now available in certain states and territories. For more information contact your local driver licensing authority (refer to Appendix 9. Driver licensing authority contacts).

Information required in a medical report form

Driver details:

- name, date of birth and contact details (postal address, phone number)
- consent for the driver licensing authority to contact the health professional for further information relevant to the person's fitness to drive (inclusions and wording will depend on jurisdiction)
- licence details (to guide the health professional in selecting the appropriate standard for assessment – private or commercial).

Health professional details:

- date of examination
- health professional's name and contact details
- physical or digital signature of examining health professional or health professional identity validation for online electronic medical reports.

Assessment of fitness to drive – the health professional records the following:

- whether they were familiar with the driver's medical history prior to the examination
- which standards (private/commercial) were applied in the examination
- whether the driver meets or does not meet the criteria for an unconditional licence (noting criteria that are not met and other relevant medical details)
- whether the driver meets or does not meet the criteria for a conditional licence, noting:
  - criteria that are not met and other relevant medical details
  - proposed restrictions to the person's licence (if appropriate)

  - suggestions for management and periodic review intervals (conditional licence)
- whether the driver requires additional assessment including:
  - specialist assessment (specify type)
  - practical driving assessment (specify type)
  - occupational therapist assessment
- whether the driver's condition has now improved so as to meet criteria for a conditional or unconditional licence noting:
  - criteria previously not met
  - response to treatment and prognosis
  - duration of improvement
- other relevant information including consideration of the driving task.

Other information contained within the form:

- legal information
- instructions to:
  - the driver/applicant
  - the health professional
- information about:
  - occupational therapy driver assessments
  - driver licensing authority driver assessments.

Appendix 2.2. Medical condition notification form

If, in the course of treatment, a patient's condition is found to affect their ability to drive safely, the health professional should, in the first instance, encourage the patient to report their condition to the driver licensing authority. A standard form, *Medical condition notification form*, has been produced to facilitate this process. The health professional completes the form, explains the circumstances to the patient and asks the patient to forward the form to the driver licensing authority. Most driver licensing authorities will also accept a letter from the treating practitioner or specialist. The letter should, however, include the details laid out in the form to enable the driver licensing authority to make a decision.

If necessary, the health professional may feel obliged to make a report directly to the driver licensing authority using a copy of this form (refer to section 3.3 and step 6). Even when making a report directly to the driver licensing authority, the health professional should inform the patient that they are doing so.

Medical Condition Notification Form

To: _____

[Add the address of your local driver licensing authority from Appendix 9: Driver licensing authority contacts in *Assessing fitness to drive 2022*.]

Patient details [please print]:

Title:	**Surname:**
Given names:	
Full address:	
Date of birth: __ __ / __ __ / __ __ __ __	**Licence no.:**

Health professional's details [please print]:

Reporting professional's name:	
Professional's address:	
Phone:	**Email:**
Date of examination: __ __ / __ __ / __ __ __ __	**Signature:**

Assessment of fitness to drive – report

I have examined the patient (whose name, address and date of birth are set out above) in accordance with the relevant National Medical Standards (private or commercial) as set out in *Assessing fitness to drive, 2022*.

☐ **Private vehicle standards** ☐ **Commercial vehicle standards**

I have known/treated the patient since (insert date): __ __ / __ __ / __ __ __ __

In my opinion and in accordance with standards in *Assessing fitness to drive*, the person who is the subject of this report:

- ☐ Meets the medical criteria to hold an unconditional licence
- ☐ Does not meet the medical criteria to hold an unconditional licence but may meet the medical criteria to hold a conditional licence
- ☐ Does not meet the medical criteria to hold an unconditional or conditional licence
- ☐ Has had an improvement in their medical condition such that they meet the criteria for an unconditional or conditional licence
- ☐ Requires further examination

Please provide information to support this assessment.

Please describe the nature of the condition and provide information to support consideration of the licensing decision, including information used to evaluate against the medical criteria, consideration of the driving task, or recommendations for further examination:

If applicable, please describe any recommended licence conditions or restrictions relating to the driver's medical condition including requirements for periodic review (e.g. annual review), vehicle modifications, corrective lenses or restricted daytime driving, etc:

For conditions that have improved, please provide details of: the criteria previously not met; the response to treatment and prognosis; duration of improvement; and other relevant information including consideration of the driving task:

- ☐ Further comments on medical condition(s) affecting safe driving are attached

Appendix 3. Legislation relating to reporting

Appendix 3.1. Legislation relating to reporting by drivers

State or Territory	Legislation	Discretionary reporting
Australian Capital Territory	Road Transport (Driver Licensing) Regulation 2000, r. 77 (2), (3)	If a person who is the holder of a driver licence suffers any permanent or long-term illness, injury or incapacity that may impair his or her ability to drive safely, the person must tell the road transport authority as soon as practicable (but within seven days). Maximum penalty: 20 penalty units. It is a defence to the prosecution of a person for an offence against this section if the person establishes: a. that the person was unaware that his or her ability to drive safely had been impaired, or b. that the person had another reasonable excuse for contravening the sub-section.
New South Wales	Road Transport (Driver Licensing) Regulation 2017, c. 122 (4)	The holder of a driver licence must, as soon as practicable, notify the road transport authority of any permanent or long-term injury or illness that may impair his or her ability to drive safely.
Northern Territory	*Motor Vehicles Act 1949*, s. 11(3)	If a person who is licensed to drive a motor vehicle is suffering from a physical or mental incapacity that may affect his or her ability to drive a motor vehicle with safety to the public, the person or his or her personal representative, they must notify the registrar of the nature of the incapacity in terms of unfitness.
Queensland	Transport Operations (Road Use Management – Driver Licensing) Regulation 2010, rr. 50, 51	A person is not eligible for the grant or renewal of a Queensland driver licence if the chief executive reasonably believes the person has a mental or physical incapacity that is likely to adversely affect the person's ability to drive safely. However, the person is eligible for the grant or renewal of a Queensland driver licence if the chief executive reasonably believes that, by stating conditions on the licence, the person's incapacity is not likely to adversely affect the person's ability to drive safely.
	Transport Operations (Passenger Transport) Regulation 2005, r. 40A	The holder of a Queensland driver licence must give notice to the chief executive if they develop any permanent or long-term mental or physical incapacity, or there is any permanent or long-term increase in, or other aggravation of, a mental or physical incapacity that is likely to affect the holder's ability to drive safely. More specifically, there is a standard for drivers of public passenger vehicles: An authorised driver must: a. notify the chief executive if there is a change in the driver's medical condition that makes the driver continuously unfit to safely operate a motor vehicle for more than one month b. within five years after the issue of the last medical certificate given to the chief executive, give the chief executive a fresh medical certificate.

State or Territory	Legislation	Discretionary reporting
South Australia	*Motor Vehicles Act 1959*, s. 98AAF	The holder of a licence or learner's permit who, during the term of the licence or permit, suffers any illness or injury that may impair his or her competence to drive a motor vehicle without danger to the public must, within a reasonable time after the occurrence of the illness or injury, notify the registrar in writing of that fact. Maximum penalty: $750
Tasmania	Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2021, rr. 45(1), 45(2)	The holder of a driver licence must, as soon as practicable, notify the registrar of: a. any permanent or long-term injury or illness that may impair his or her ability to drive safely, or b. any deterioration of physical or mental condition (including a deterioration of eyesight) that may impair his or her ability to drive safely, or c. any other factor related to physical or mental health that may impair his or her ability to drive safely. **Penalty:** Fine not exceeding 10 penalty units. Unless the registrar requires written notification, the notification need not be in writing.
Victoria	Road Safety (Drivers) Regulations 2019, r. 68(2)	The holder of a driver licence or permit or any person exempted from holding a driver licence or permit under section 18(1)(a) of the Act must, as soon as practicable, notify the Secretary and any other relevant agency of any permanent or long-term illness, disability, medical condition or injury, or the effects of the treatment for any of those things, that may impair his or her ability to drive safely.

State or Territory	Legislation	Discretionary reporting
Western Australia	Road Traffic (Authorisation to Drive) Regulations 2014, r. 64	Duty to reveal things that might impair ability: 1. In this regulation – driving impairment of the person means any permanent or long-term mental or physical condition (which may include a dependence on drugs or alcohol) that is likely to, or treatment for which is likely to, impair the person's ability to control a motor vehicle either – a. in all circumstances; or b. except under certain conditions or subject to certain limitations; or c. unless measures are taken to overcome the impairment. 2. A person applying for the grant of a learner's permit or a driver licence, other than by way of renewal must, when applying, inform the CEO of any driving impairment of the person. Penalty: 10 PU. Modified penalty: 1 PU. 3. If a person who holds a learner's permit or a driver licence becomes affected by any driving impairment of the person of which the person has not already informed the CEO, the person must, as soon as practicable, to inform the CEO in writing of the impairment. Penalty: 10 PU Modified penalty: 1 PU 4. If a person who has informed the CEO of a driving impairment of the person becomes affected by an increase in the extent of the impairment to a degree that is substantially different from that of which the CEO was most recently informed the person must, as soon as practicable, inform the CEO in writing of the development. Penalty: 10 PU Modified penalty: 1 PU 5. If a person who has informed the CEO of a driving impairment of the person later informs the CEO that the person has ceased to be affected by the impairment but subsequently becomes again affected by it the person must, as soon as practicable, inform the CEO in writing of the development. Penalty: 10 PU. Modified penalty: 1 PU.

Appendix 3.2. Legislation relating to reporting by health professionals

Jurisdiction and legislation	Applies to	Discretionary reporting	Mandatory reporting
Australian Capital Territory *Road Transport (General) Act 1999,* ss. 230 (3) (4) *Road Transport (Driver Licensing) Act 1999,* s. 28 *Road Transport (Driver Licensing) Regulation 2000, rr.* 15, 15A, 69, 70 and 78	An individual carrying out a certain test or examination (i.e. medical practitioners, optometrists, occupational therapists, physiotherapists) An individual	An individual is not civilly or criminally liable for carrying out a test or examination in accordance with the regulation made under the *Road Transport (Driver Licensing) Act 1999* and expressing to the road transport authority, in good faith, an opinion formed because of having carried out the test or examination. An individual is not civilly or criminally liable for reporting to the road transport authority, in good faith, information that discloses or suggests that someone else is or may be unfit to drive or that it may be dangerous to allow someone else to hold, to be issued or to have renewed, a driver licence or a variation of a driver licence.	There is no mandatory reporting requirement for practitioners.
New South Wales *Road Transport Act 2013*, ss. 275 (3) & (4) *Road Transport Act 2013*, Schedule 1 Road Transport (Driver Licensing) Regulation 2017, c. 60	An individual carrying out a certain test or examination (i.e. medical practitioners, optometrists, occupational therapists, physiotherapists) An individual	An individual does not incur civil or criminal liability for carrying out a test or examination in accordance with statutory rules made for the purposes of driver licensing and expressing to the authority in good faith an opinion formed as a result of having carried out the test or examination. An individual does not incur civil or criminal liability for reporting to the authority, in good faith, information that discloses or suggests that another person is or may be unfit to drive or that it may be dangerous to allow another person to hold, to be issued or to have renewed, a driver licence or a variation of a driver licence.	There is no mandatory reporting requirement for practitioners.

Jurisdiction and legislation	Applies to	Discretionary reporting	Mandatory reporting
Northern Territory *Motor Vehicles Act 1949*, s. 11	A registered person means a medical practitioner, an optometrist, an occupational therapist or a physiotherapist who is registered under the applicable Acts	Not covered in legislation.	If a registered person reasonably believes that a person they have examined is licensed to drive a motor vehicle and is physically or mentally incapable or driving a motor vehicle with safety to the public or is physically or mentally unfit to be licensed, the registered person must notify the registrar in writing of the person's name and address and the nature of the incapacity or unfitness.
Queensland *Transport Operations (Road Use Management) Act 1995*, s. 142	A person registered under the Health Practitioner Regulation National Law to practise in the medical profession, other than as a student	A health professional is not liable, civilly or under an administrative process, for giving information in good faith to the chief executive about a person's medical fitness to hold, or to continue to hold, a Queensland driver licence. Without limiting this, in a civil proceeding for defamation, a health professional has a defence of absolute privilege for publishing the information. Additionally, if the health professional would otherwise be required to maintain confidentiality about the information under an Act, oath, rule of law or practice, the health professional does not contravene the Act, oath, rule of law or practice by disclosing the information and is not liable to disciplinary action for disclosing the information.	There is no mandatory reporting requirement for practitioners.

Jurisdiction and legislation	Applies to	Discretionary reporting	Mandatory reporting
South Australia *Motor Vehicles Act 1959*, s. 148	A legally qualified medical practitioner, a registered optician or a registered physiotherapist	Not covered in legislation.	Where a legally qualified medical practitioner, a registered optician or a registered physiotherapist has reasonable cause to believe that a person whom they have examined holds a driver licence or a learner permit and that person is suffering from a physical or mental illness, disability or deficiency such that, if the person drove a motor vehicle, they would be likely to endanger the public, then the medical practitioner, registered optician or registered physiotherapist is under a duty to inform the registrar in writing of the name and address of that person, and of the nature of the illness, disability or deficiency from which the person is believed to be suffering. Where a medical practitioner, registered optician or registered physiotherapist furnishes such information to the registrar, they must notify the person to whom the information relates of that fact and of the nature of the information furnished. No civil or criminal liability is incurred in carrying out the duty imposed.

Jurisdiction and legislation	Applies to	Discretionary reporting	Mandatory reporting
Tasmania *Vehicle and Traffic Act 1999,* ss. 63 (2), 56 *Vehicle and Traffic Act 1999,* s. 63 (1)	A person	A person incurs no civil or criminal liability for reporting to the registrar, in good faith, the results of a test or examination carried out under the Act or an opinion formed as a result of conducting such a test or examination. Section 56 deals with tests and examinations of drivers. A person incurs no civil or criminal liability for reporting to the registrar, in good faith, that another person may be unfit to drive a motor vehicle.	There is no mandatory reporting requirement for practitioners.
Victoria *Road Safety Act 1986*, s. 27 (4) Road Safety (Drivers) Regulations 2019, r. 69	A person carrying out a test under s. 27 (i.e. registered medical practitioners, optometrists, occupational therapists and other people authorised in writing by VicRoads) A person who expresses an opinion to VicRoads formed as a result of the test	No action may be taken against a person who carries out a test to determine if a person is unfit to drive or if it is dangerous for that person to drive) and who expresses to VicRoads an opinion formed by that person as a result of the test. No action may be taken against a person who, in good faith, reports to VicRoads any information that discloses or suggests that a person is unfit to drive or that it may be dangerous to allow that person to hold or to be granted a driver licence, a driver licence variation or a learner permit.	There is no mandatory reporting requirement for practitioners.

Jurisdiction and legislation	Applies to	Discretionary reporting	Mandatory reporting
Western Australia *Road Traffic (Administration) Act 2008,* s. 136	A person	People expressing an opinion to the Director General formed as a result of carrying out a test or examination under the provisions of the Act are protected from liability when acting in good faith. An action in tort does not lie against a person, and a person is not to be prosecuted for an offence, for reporting to the CEO, in good faith, information that discloses or suggests that: • another person is or may be unfit to drive, or • it may be dangerous to: – allow another person to hold a driver licence or learner's permit, or – grant a driver licence or learner's permit to another person, or – vary or not to vary, another person's driver licence or learner permit.	There is no mandatory reporting requirement for practitioners.

Appendix 4. Drivers' legal BAC limits

Appendix 4.1. Summary of state and territory laws on BAC and driving

State/territory	Drivers of cars and light trucks, motorcycle riders	Drivers of trucks, taxis, buses and private hire cars
Australian Capital Territory	The legal BAC limit applying to learner, provisional and probationary drivers, drivers classed as 'special drivers' and restricted licence holders is **zero BAC**. The legal limit for drivers of cars, trucks and buses (excluding public vehicles) up to 15 tonnes gross vehicle mass (GVM) and riders of motorcycles who hold a full licence (gold) is below **0.05 BAC**.	The legal BAC limit applying to drivers of heavy motor vehicles exceeding 15 tonnes GVM, dangerous goods vehicles, public vehicles (taxis, buses, rideshare, and private hire cars) and Commonwealth chauffeur cars is **zero BAC**.
New South Wales	A **zero BAC** limit applies to all learner licence holders, provisional P1 licence holders, provisional P2 licence holders and interlock licence holders. For drivers not listed elsewhere it is **0.05 BAC**.	For drivers of trucks over 13.9 tonnes GVM, all drivers of public passenger vehicles within the meaning of the *Passenger Transport Act 1990* and drivers of any vehicles carrying dangerous goods or radioactive substances it is **0.02 BAC**.
Northern Territory	For unlicensed and learner drivers, provisional licence holders, drivers under 25 with less than 3 years' experience it is **zero BAC**. For drivers not listed elsewhere it is **0.05 BAC**.	For drivers of vehicles over 15 tonnes GVM, public passenger vehicles, dangerous goods vehicles, vehicles with people unrestrained in an open load space and vehicles carrying more than 12 people; and for driving instructors while instructing, licensed drivers under the age of 25 who have been licensed for less than 3 years it is **zero BAC**. For drivers not listed elsewhere it is **0.05 BAC**.
Queensland	For learner licence holders, probationary licence holders, provisional licence holders, class RE licence holders for the first year of holding a motorbike licence, restricted licence holders, licence holders subject to a 79E order, interlock drivers, driver trainers while giving driver training and unlicensed drivers it is **zero BAC**. For drivers not listed elsewhere it is **0.05 BAC**.	For drivers of trucks, public passenger vehicles, articulated motor vehicles, B-doubles, road trains, vehicles carrying placard load of dangerous goods, tow trucks and pilot or escort vehicles it is **zero BAC**. For drivers not listed elsewhere it is **0.05 BAC**.
South Australia	For learner permit holders and provisional and probationary licence holders it is **zero BAC**. For drivers not listed elsewhere it is **0.05 BAC**. Note that unlicensed drivers are also subject to **zero BAC**.	For drivers of vehicles over 15 tonnes GVM, prime movers with an unladen mass less than 4 tonnes, taxis, buses, licensed chauffeured vehicles and vehicles carrying dangerous goods it is **zero BAC**.

State/territory	Drivers of cars and light trucks, motorcycle riders	Drivers of trucks, taxis, buses and private hire cars
Tasmania	For unlicensed and learner drivers, provisional licence holders, people convicted of causing death driving a motor vehicle, or reckless or negligent driving, people with three of more drink-driving convictions in 10 years it is **zero BAC**. For drivers not listed elsewhere it is **0.05 BAC**.	For drivers of all public passenger vehicles (e.g. buses, taxis) and vehicles exceeding 4.5 tonnes GVM it is **zero BAC**.
Victoria Further information: https://www.vicroads.vic.gov.au/licences/demerit-points-and-offences/drink-and-drug-driving-offences/drink-driving-offences	A **zero BAC** applies to the following groups of drivers: • car and motorcycle learner and probationary drivers • people who get their licence or permit back after being disqualified from driving (this applies for 3 years from that date) • people who have an interlock condition on their licence • professional driving instructors • motorcyclists in the first 3 years of holding a licence • drivers with a Z condition on their licence. A **0.05 BAC** applies for other drivers Any driver/rider licensed following a drink-driving offence has a zero BAC condition on their licence for a period of **3 years** (or if the period of their interlock condition is longer, it is whichever is greater) and must install an alcohol interlock prior to licensing.	A **zero BAC** applies to the following groups of drivers: • drivers of vehicles over 15 tonnes GVM • all taxi and bus drivers • some emergency vehicle drivers.
Western Australia	A **zero BAC** applies to the following groups of drivers: • novice drivers • holders of extraordinary licences • recently disqualified drivers. A **0.05 BAC** applies for other drivers.	A **zero BAC** applies to the following groups of drivers: • vehicles exceeding 22.5 tonne gross combination mass (GCM) • vehicles carrying dangerous goods (when such goods are being carried) • buses (while carrying passengers where the vehicle is equipped to carry more than 12 adults including the driver) • small charter vehicles (when carrying passengers for hire or reward) • taxis (when carrying passengers for hire or reward). A **0.05 BAC** applies for other drivers.

Appendix 5. Alcohol interlock programs

Appendix 5.1. Summary of state and territory laws on alcohol interlocks and driving

State/territory	Summary of law
Australian Capital Territory	The Australian Capital Territory's alcohol interlock program began on 17 June 2014. High-risk drinkdriving offenders (high range and habitual drinkdriving offenders) must participate in the ACT alcohol interlock program as a mandatory condition of relicensing. For these high-risk offenders, participation in the program may include a court-ordered therapeutic component as well as a requirement to only drive a vehicle fitted with an interlock device. All high-risk offenders are required to undergo a pre-sentence assessment by the Court Alcohol and Drug Assessment Service. Voluntary participation is an option for other drink-driving offenders, who may reduce their total disqualification period by agreeing to participate in, and comply with, an alcohol interlock program. These offenders may elect to apply for a probationary licence, which will be issued subject to an interlock condition, at any time during their disqualification period. High-risk offenders who obtain an exemption from participating in the scheme must complete their full disqualification period before applying for a probationary licence. Exemptions are available only where special circumstances exist. There is a 6 month minimum program participation period, with program participants required to demonstrate a continuous period of 3 months' compliance with the interlock program (i.e. no alcohol detected in the person's breath samples) and compliance with any treatment order before the interlock condition may be removed. More information can be found on the ACT Road Transport Authority website at http://www.rego.act.gov.au/licence/act-road-rules,-laws-and-publications/alcohol-ignition-interlock-program.

State/territory	Summary of law
New South Wales	Drivers convicted of serious drink driving offences are restricted to driving vehicles with alcohol interlock devices for a period of time when they return to driving. High-range, mid-range, repeat driving under the influence of alcohol and all combined drink and drug driving offenders must participate in the program (the blood alcohol content is zero) unless the court makes an interlock exemption order. The requirements apply to specific offences declared 'alcohol related major offences' in s. 211 of the *Road Transport Act 2013*. Interlock orders may also be made by a court if a person is convicted of dangerous driving offences as prescribed in s. 52A of the *Crimes Act 1900* where the offence involved the presence of alcohol. The licence holder must meet mandatory alcohol Interlock licence conditions, in addition to other conditions that may apply to the licence, and must not drive a motor vehicle with a placard load within the meaning of the Dangerous Goods (Road and Rail Transport) Regulation 2014. At the end of a court-ordered interlock period, Transport for NSW may refer interlock licence holders to a medical professional for assessment under the *Assessing fitness to drive* guidelines if interlock data indicate that further medical assessment for substance misuse may be required. Based on the recommendation of a medical professional, Transport for NSW can extend the interlock condition for a further 6 months. At the end of this period, these drivers must undertake another fitness-to-drive assessment before they complete the program. More information can be found on the Transport for NSW website at https://roads-waterways.transport.nsw.gov.au/roads/demerits-offences/drug-alcohol/interlock-program.html.
Northern Territory	The Northern Territory's Alcohol Interlock Program was introduced in 2009. The program applies to repeat drink-drivers convicted of a relevant offence on a second and subsequent occasion including: driving with a high-range blood alcohol content (BAC of 0.15 per cent or greater); driving with a medium-range blood alcohol content (BAC of 0.08 per cent or greater, but less than 0.15 per cent); driving under the influence of alcohol or both alcohol and a drug; failing to provide a sufficient sample of breath for a breath analysis; failing to give a sample of blood for analysis; or driving with alcohol in the blood if the driver is subject to a zero alcohol limit. The program is a period of driving under conditions, which include the requirement to drive a vehicle fitted with an alcohol ignition lock (AIL). The court may, in addition to disqualifying a person from driving for a mandatory period, order an AIL period ranging from 6 months to 3 years. When the mandatory disqualification period ends, a person can apply for an AIL licence and have an AIL device installed by an approved supplier or, if they opt not to drive, serve out the court-imposed AIL period as an additional disqualification period. To obtain an AIL licence a person must have held a driver licence other than a learner licence within the previous 5 years and completed the drink-driver education course relevant to the offence. More information can be found on the Northern Territory website at https://nt.gov.au/driving/driving-offences-and-penalties/alcohol-ignition-lock-order/introduction.

State/territory	Summary of law
Queensland	Drink-drivers who are convicted of driving while over the alcohol limit, driving under the influence of alcohol, failing to provide a breath specimen for analysis, dangerous driving when adversely affected by alcohol, or two or more drink-driving offences of any kind within a 5 year period are subject to Queensland's Alcohol Ignition Interlock Program. Drivers subject to the program must comply with the no-alcohol limit at all times when driving and only drive a vehicle that has been nominated to the department and fitted with an approved interlock. To complete the program a person must hold a valid licence with an 'I' (interlock) condition and have an approved interlock installed in a nominated vehicle for a minimum period of 1 year. If a person chooses not to have an approved interlock installed, they are not allowed to drive for 2 years from the end of their disqualification period for the drink-driving offence. Exemptions are available only where special circumstances exist. More information can be found on the Queensland Government website at https://www.qld.gov.au/transport/safety/road-safety/drink-driving/penalties/interlocks/index.html.
South Australia	The Mandatory Alcohol Interlock Scheme (MAIS) began in South Australia in 2009. This scheme is administered by the Registrar of Motor Vehicles under s. 81E of the *Motor Vehicles Act 1959*. All people who commit a serious drinkdriving offence are liable to the scheme on returning to driving after completing the court-imposed disqualification period. A serious drinkdriving offence is defined as: a second or subsequent offence, within a period of 5 years, of driving with a BAC at or above 0.08; driving with a BAC at or above 0.15; driving under the influence of an intoxicating liquor; or refusing to provide a sample of breath or blood for the purpose of alcohol testing. The conditions apply for a period equal to the disqualification period ordered by the Magistrates' Court plus any immediate loss of licence suspension issued by South Australia Police, to a maximum of 3 years. The MAIS requires the person to nominate a vehicle(s) that he/she will drive for the period the conditions apply and to have an alcohol interlock device fitted to the vehicle(s). The person **must not** operate any other vehicles. Exemptions are available only where special circumstances exist. Licence holders who are assessed by an approved assessment clinic as dependent on alcohol can make an application to the Registrar of Motor Vehicles for a licence subject to an interlock condition. If approved the person is granted a licence subject to the interlock condition; this condition can only be removed where the licence holder is assessed by an approved assessment clinic as non-dependent on alcohol. If the person does not agree to the interlock condition, they are refused the issue of a licence until they are assessed as non-dependent. More information can be found on the South Australian Department of Planning, Transport and Infrastructure website at http://www.dpti.sa.gov.au/towardszerotogether/Safer_behaviours/alcohol_drink_driving2/mandatory_interlock_scheme_faqs.

State/territory	Summary of law
Tasmania	Drivers convicted of drinkdriving offences are subject to Tasmania's Mandatory Alcohol Interlock Program (MAIP). The scheme is administered by the Registrar of Motor Vehicles under the Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2021. The program applies to drivers convicted of: a drinkdriving offence recording a BAC of 0.15 or more; two or more drink-driving offences in a 5 year period; driving under the influence of liquor; or failing to provide a breath/blood specimen for analysis. Participants serve a disqualification period and then are required to have an interlock installed in a nominated vehicle at the conclusion of their disqualification and before their driver licence can be issued/reissued. Tasmania's program runs for a minimum of 15 months consisting of a 9 month 'learning period' and a 6 month 'demonstration period'. There are limited grounds for exemption to participating in the Tasmanian MAIP. More information can be found on the Tasmanian Department of State Growth website at http://www.transport.tas.gov.au/licensing/offences/interlocks.
Victoria	As of 30 April 2018, all drivers committing a drinkdriving offence will lose their licence, be required to complete a behaviour change program and fit an alcohol interlock to their vehicle before licensing. More information can be found on the VicRoads website at https://www.vicroads.vic.gov.au/licences/demerit-points-and-offences/drink-and-drug-driving-offences.
Western Australia	From October 2016, high-end and repeat drink-drivers who commit offences will be subject to Western Australia's Alcohol Interlock Program under the *Road Traffic Amendment (Alcohol Interlocks and Other Matters) Act 2015*. Offences include first-time driving under the influence of alcohol offences; first-time failure to provide breath, blood or urine sample offences; first-time dangerous driving causing death, bodily harm or grievous bodily harm offences where the offender is under the influence of alcohol to such an extent as to be incapable of having proper control of a vehicle; and second or subsequent drink-driving offences of any kind within a 5 year period. Drivers convicted of alcohol-related offences on seeking authorisation to drive will have their licence endorsed with an interlock condition restricting their driving to vehicles fitted with an approved alcohol interlock device. The period a driver is required to have an interlock installed in their vehicle is referred to as the 'restricted driving period'. The disqualification imposed by the courts and the type of licence granted to a person will determine the length of the restricted driving. The program includes support by means of an alcohol assessment, a treatment component and extension of time on the interlock device for those who don't comply. More information can be found on the Western Australian Road Safety Commission website at https://www.rsc.wa.gov.au/Documents/Law-Changes/rsc-alcohol-interlocks-fact-sheet.aspx.

Appendix 6. Disabled car parking and taxi services

People suffering substantial levels of disability may be eligible for disabled parking permits and discount taxi fares. The practitioner should direct enquiries to the contacts shown below. Taxi subsidies may be available only to those physically unable to use public transport.

Appendix 6.1. Contacts for transport assistance for people with disabilities

State/territory	Disabled parking permits	Taxi services
Australian Capital Territory	Access Canberra PO Box 582 Dickson ACT 2602 13 22 81 lara@act.gov.au www.accesscanberra.act.gov.au	ACT Taxi Subsidy Scheme ACT Revenue Office PO Box 293 Civic Square ACT 2608 (02) 6207 0028 revenue.act.gov.au concessions@act.gov.au
New South Wales	Service NSW 13 22 13 www.service.nsw.gov.au info@service.nsw.gov.au	Taxi Transport Subsidy Scheme Locked Bag 5067 Parramatta NSW 2124 1800 623 724
Northern Territory	Contact your local council.	Commercial Passenger Vehicles Department of Infrastructure, Planning and Logistics GPO Box 2520 Darwin NT 0801 (08) 8924 7229 nt.gov.au cpv.admin@nt.gov.au
Queensland	Disabled Parking Department of Transport and Main Roads PO Box 673 Fortitude Valley QLD 4006 13 23 80	Taxi Subsidy Scheme TransLink Division Department of Transport and Main Roads PO Box 13347 Brisbane QLD 4003 1300 134 755

State/territory	Disabled parking permits	Taxi services
South Australia	Department for Infrastructure and Transport GPO Box 1533 Adelaide SA 5001 13 10 84	Public Transport Division Department for Infrastructure and Transport GPO Box 1533 Adelaide SA 5001 (08) 8204 8169
Tasmania	Transport Access Scheme Department of State Growth GPO Box 1242 Hobart TAS 7001 1300 135 513	Transport Access Scheme Department of State Growth GPO Box 1242 Hobart TAS 7001 1300 135 513
Victoria	Contact your local council.	Commercial Passenger Vehicles Victoria GPO Box 1716 Melbourne VIC 3001 1800 638 802 (toll-free for fixed landlines only) +61 3 8683 0768 (international callers) www.cpv.vic.gov.au contact@cpv.vic.gov.au
Western Australia	ACROD PO Box 184 Northbridge WA 6865 (08) 9242 5544 (Monday–Friday, 9AM–4PM) www.app.org.au app@app.org.au	Taxi Users Subsidy Scheme Department of Transport GPO Box C102 Perth WA 6839 1300 660 147

Appendix 7. Seatbelt use

The use of seatbelts is compulsory in Australia for drivers of all motor vehicles. This includes drivers of trucks and buses but excludes taxi drivers in New South Wales and Queensland (while carrying passengers). It has been reported that unrestrained occupants are more than three times more likely to be killed in the event of a crash than those who wear seatbelts.

The granting of an exemption from the use of seatbelts places a person's safety at considerable risk. For a person who is otherwise medically fit to drive, there are very few circumstances in which a medical condition will render a person unable to wear a seatbelt.

Requests relating to seatbelt exemptions

Individuals may request a medical certificate recommending or granting exemption (depending on the state or territory); however, exemptions based on most medical grounds are considered invalid. **Health professionals are discouraged from providing letters stating that the use of a seatbelt is not required.**

In conditions such as obesity, health professionals should advise the patient to have the seatbelt modified and an inertia seatbelt fitted. In conditions in which there are scars to the chest or abdomen (**i.e. post surgery/ injury**), the patient should be advised about the use of padding to prevent any problems of seatbelt irritation.

It must be stressed that exemptions due to any medical condition should be an extremely rare exception to the uniformity of a rule that enforces the legal obligation of a driver to wear a seatbelt if fit to drive.

Medical certificate regarding exemption

If a health professional recommends or grants (depending on state or territory law) an exemption, they must accept responsibility for granting the exemption. **In order to comply with the requirements of the driver licensing authority**, a certificate of exemption (or recommendation for exemption) should be issued in the following manner:

- The certificate must be dated and issued on the practitioner's letterhead (except in Queensland and Tasmania, refer below).
- The certificate must state the name, address, sex and date of birth of the person for whom the exemption is requested.
- The certificate must state the reason for which the exemption is requested.
- **The date the exemption expires must be clearly stated**. It should not exceed one year from the date of issue of the certificate except for musculoskeletal conditions or deformities of a permanent nature. The certificate may not be legally valid without this date.
- In **Victoria** a registered medical practitioner must issue the certificate stating that, because of medical unfitness or physical disability, it is impractical, undesirable or inexpedient that the person wears a seatbelt. Any conditions stated in the certificate must be complied with. The certificate (a) must be carried by the person or the driver of the vehicle whenever they are travelling in a car, (b) must clearly display a date of issue and (c) will expire after 12 months.

- In **Queensland** an approved exemption certificate (form F2690) may be completed by the practitioner. Seatbelt exemption certificates in Queensland must only be issued for a maximum period of 12 months. Contact details are listed in Appendix 9. Driver licensing authority contacts.
- In **Tasmania** a medical certificate issued by a medical practitioner exempting the person from wearing a seatbelt must be carried. See the website at www.transport.tas.gov.au/licensing/exemptions for further information. Contact details are listed in Appendix 9: Driver licensing authority contacts.
- In the **Northern Territory** a medical recommendation that clearly indicates that these guidelines have been referred to in reaching the exemption recommendation is required. All such recommendations should be sent to the Registrar of Motor Vehicles. Contact details are in Appendix 9. Driver licensing authority contacts.
- Inform the patient that the certificate must be carried when travelling in motor vehicles without using a seatbelt and must be shown to police and authorised officers when requested.
- All health professionals and licensing authorities should keep a record of all exemptions granted or recommended and document the reasons for exemption in case litigation occurs.

Appendix 7.1. Medical exemptions

The table below suggests guidelines for possible exemptions.

Seatbelt exemptions

Condition	Exemption
Ileostomies and colostomies	No exemption. In normal circumstances, a properly worn seatbelt should not interfere with external devices. An occupational therapist can advise on seatbelt adjustments in other cases.
Musculoskeletal conditions and deformities	Exemption possible for passengers only, depending on the exact nature of the condition.
Obesity	Modification of restraint advised. If not feasible, an exemption is possible.
Pacemakers	No exemption. If the pacemaker receives a direct compression force from a seatbelt, the device should be checked for malfunction.
Physical disability	No exemption. Advise patient about correct fitting.
Pregnancy	No exemption. Advise patient about correct fitting.
Psychological conditions	No exemption. Claustrophobia from seatbelt use can be overcome; if the condition is severe, refer the patient to a specialist.
Scars and wounds	No exemption. Advise the patient about the use of protective padding.

Appendix 8. Helmet use

It is compulsory for motorcyclists to wear helmets in Australia. Legislation does not allow for exemptions in New South Wales, Victoria, South Australia, Queensland and the Australian Capital Territory. In the Northern Territory, legislation does not permit an exemption on medical grounds. Exemptions are possible in other states only under extremely rare conditions and should be strongly discouraged. Health professionals are urged to point out to patients the risk of severe disability or death compared with the relatively small advantages of an exemption from wearing a motorcycle helmet.

It is also compulsory for bicyclists to wear helmets in Australia. In those states or territories where exemptions are possible, applications should be strongly discouraged in view of the greater risk of injury and death. The table below shows the laws on exemption from wearing bicycle helmets by state and territory.

Appendix 8.1. State and territory laws on exemptions from wearing bicycle or motorcycle helmets

State/territory	Motorcycle helmets	Bicycle helmets
Australian Capital Territory	No exemptions	No exemptions
New South Wales	No exemptions	No exemptions
Northern Territory	No medical exemptions	Bicycle helmets are not necessary for people who have attained the age of 17 years and who ride in a public place, on a footpath, shared path or cycle path (if separated from the roadway by a barrier) or in an area declared exempt by the transport minister.
Queensland	No exemptions	A person is exempt from wearing a bicycle helmet if the person is carrying a current doctor's certificate stating that, for a stated period the person cannot wear a bicycle helmet for medical reasons, or because of a physical characteristic of the person, it would be unreasonable to require them to wear a bicycle helmet. A person is exempt if they are a member of a religious group and they are wearing a type of headdress customarily worn by members of the group and the wearing of the headdress makes it impractical for them to wear a bicycle helmet.

State/territory	Motorcycle helmets	Bicycle helmets
South Australia	No exemptions	Exemptions for Sikh religion only
Tasmania	No exemptions	May be considered on medical grounds at discretion of the Transport Commission. Email: info@stategrowth.tas.gov.au
Victoria	No exemptions	Exemptions possible on religious or medical grounds
Western Australia	No new motorcycle helmet exemption applications are granted; however, legislation allows exemptions granted on or before 30 November 2000 to be renewed prior to expiry, at the discretion of the Department of Transport with supporting evidence from a medical practitioner.	Exemption on medical or religious grounds. A medical certificate from a GP is required; however, issue is at the discretion of the Department of Transport with supporting evidence from a medical practitioner.

Appendix 9. Driver licensing authority contacts

Appendix 9.1. State or general contact details for health professional enquiries

State/territory	General contact details including for heavy vehicle licensing	Health professional enquiries
Australian Capital Territory	Access Canberra 13 22 81 lara@act.gov.au www.accesscanberra.act.gov.au	Access Canberra 13 22 81 lara@act.gov.au www.accesscanberra.act.gov.au
New South Wales	Transport for NSW Locked Bag 928 North Sydney NSW 2059 13 22 13 info@service.nsw.gov.au www.rms.nsw.gov.au	Licence Review Unit Transport for NSW Locked Bag 14 Grafton NSW 2460 (02) 6640 2821 medicalunit@transport.nsw.gov.au
Northern Territory	Motor Vehicle Registry GPO Box 530 Darwin NT 0801 1300 654 628 / (08) 8999 3111 mvr.medical@nt.gov.au nt.gov.au	Motor Vehicle Registry GPO Box 530 Darwin NT 0801 1300 654 628 / (08) 8999 3111 mvr.medical@nt.gov.au nt.gov.au
Queensland	Department of Transport and Main Roads GPO Box 2451 Brisbane QLD 4001 (07) 13 23 80 lavr@tmr.qld.gov.au www.tmr.qld.gov.au	Department of Transport and Main Roads Locked Bag 2000 Red Hill Rockhampton QLD 4701 1300 753 627 MCR@tmr.qld.gov.au www.tmr.qld.gov.au

State/territory	General contact details including for heavy vehicle licensing	Health professional enquiries
South Australia	Department for Infrastructure and Transport GPO Box 1533 Adelaide SA 5001 13 10 84 DIT.enquiriesadministrator@sa.gov.au www.sa.gov.au	Manager – Licence Regulation Department for Infrastructure and Transport Locked Bag 700 GPO Adelaide SA 5001 (08) 8204 1946
Tasmania	Department of State Growth GPO Box 1002 Hobart TAS 7001 1300 135 513 dlu@stategrowth.tas.gov.au www.transport.tas.gov.au	Driver Licensing Unit Registration and Licensing Services Department of State Growth GPO Box 1002 Hobart TAS 7001 (03) 6166 4887
Victoria	VicRoads Medical Review PO Box 2504 Kew VIC 3101 13 11 71 medicalreview@roads.vic.gov.au www.vicroads.vic.gov.au/licences/health-and-driving	VicRoads Medical Review PO Box 2504 Kew VIC 3101 (03) 8391 3224 medicalreview@roads.vic.gov.au www.vicroads.vic.gov.au/licences/health-and-driving
Western Australia	Driver Services Department of Transport GPO Box R1290 Perth WA 6844 1300 852 722 driverservices@transport.wa.gov.au www.transport.wa.gov.au	Driver Services Department of Transport GPO Box R1290 Perth WA 6844 1300 852 722 driverservices@transport.wa.gov.au www.transport.wa.gov.au

Appendix 9.2. Public passenger vehicle driver licensing and dangerous goods vehicle driver licensing enquiries

State/territory	Public passenger vehicle driver licensing enquiries	Dangerous goods vehicle driver licensing enquiries
Australian Capital Territory	Access Canberra 13 22 81 lara@act.gov.au www.accesscanberra.act.gov.au	Dangerous Goods Transport WorkSafe ACT GPO Box 158 Canberra ACT 2601 (02) 6207 3000
New South Wales	Enrolment Processing Unit Transport for NSW Locked Bag 5310 Parramatta NSW 2150 1800 227 774	Department of Conservation and Environment PO Box A290 Sydney South NSW 1232 13 15 55 / (02) 9995 5555
Northern Territory	Commercial Passenger Vehicles Department of Infrastructure, Planning and Logistics GPO Box 2520 Darwin NT 0801 (08) 8924 7580 cpv.admin@nt.gov.au	NT WorkSafe Department of Business GPO Box 3200 Darwin NT 0801 1800 019 115
Queensland	Operator Accreditation and Authorisation Team Department of Transport and Main Roads PO Box 673 Fortitude Valley QLD 4006 (07) 3338 4994 PTStandards@tmr.qld.gov.au	Industry Accreditation and Licensing Team Department of Transport and Main Roads PO Box 673 Fortitude Valley QLD 4006 (07) 3066 2995 dgu@tmr.qld.gov.au

State/territory	Public passenger vehicle driver licensing enquiries	Dangerous goods vehicle driver licensing enquiries
South Australia	Accreditation and Licensing Centre Department for Infrastructure and Transport PO Box 9 Marleston BC SA 5033 (08) 7109 8117	SafeWork SA Attorney-General's Department GPO Box 465 Adelaide SA 5001 1300 365 255
Tasmania	Driver Licensing Unit Registration and Licensing Services Department of State Growth GPO Box 1002 Hobart TAS 7001 (03) 6166 4887	WorkSafe Tasmania PO Box 56 Rosny Park TAS 7018 1300 366 322 (in Tasmania) / (03) 6166 4600 wstinfo@justice.tas.gov.au
Victoria	Commercial Passenger Vehicles Victoria GPO Box 1716 Melbourne VIC 3001 1800 638 802 (toll-free for fixed landlines only) contact@cpv.vic.gov.au cpv.vic.gov.au	WorkSafe Victoria Advisory Service GPO Box 4293 Melbourne VIC 3001 1300 852 562 licensing@worksafe.vic.gov.au http://www.worksafe.vic.gov.au/safety-and-prevention/licensing/worksafe-licence-types-and-fees/application-for-a-dangerous-goods-driver-licence
Western Australia	Driver Services Department of Transport GPO Box R1290 Perth WA 6844 1300 852 722 driverservices@transport.wa.gov.au www.transport.wa.gov.au	Department of Consumer and Employment Protection, Resources and Safety Division 100 Plain Street East Perth WA 6004 (08) 9222 3333

Appendix 10. Specialist driver assessors

Appendix 10.1. Contact for occupational therapist specialist driver assessors

Region	Organisation	Contact
Australian Capital Territory	Driver Assessment and Rehabilitation Program (Canberra Hospital)	1300 682 878
New South Wales	Occupational Therapy Australia	1300 682 878
Northern Territory	Occupational Therapy Australia	1300 682 878
Queensland	Occupational Therapy Australia	1300 682 878
South Australia	Occupational Therapy Australia	1300 682 878
Tasmania	Occupational Therapy Australia	1300 682 878
Victoria	VicRoads maintains a current list of occupational therapy driving assessors who operate throughout Victoria. The list is located on this page: https://www.vicroads.vic.gov.au/licences/health-and-driving/information-for-health-professionals/occupational-therapist Occupational therapy driving assessors can also be located via the 'Find an OT' page on the Occupational Therapy Australia Victoria webpage: https://www.otaus.com.au/find-an-ot	VicRoads Medical Review PO Box 2504 Kew VIC 3101 (03) 8391 3226 or VicRoads on 13 11 71 (TTY 13 36 77, Speak and Listen 1300 555 727) medicalreview@roads.vic.gov.au vicroads.vic.gov.au Occupational Therapy Australia – Victoria 5/340 Gore Street Fitzroy VIC 3065 1300 682 878 otaus.com.au/contact
Western Australia	Occupational Therapy Australia	1300 682 878

Occupational Therapy Australia has a listing of occupational therapists qualified in driver assessment. Visit the Occupational Therapy Australia website at www.otaus.com.au.

National Transport Commission