

PART B: MEDICAL STANDARDS



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 overleaf.

1.2 GENERAL ASSESSMENT AND MANAGEMENT GUIDELINES

1.2.1 General considerations

Blackouts may occur due to a number of mechanisms including:

- vasovagal syncope or 'faint', which accounts for over 50% 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% of blackouts
- other causes including metabolic (e.g. hypoglycaemia), drug intoxication or 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' in order 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 can not be established.

1.2.2 Vasovagal syncope

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 of undetermined mechanism

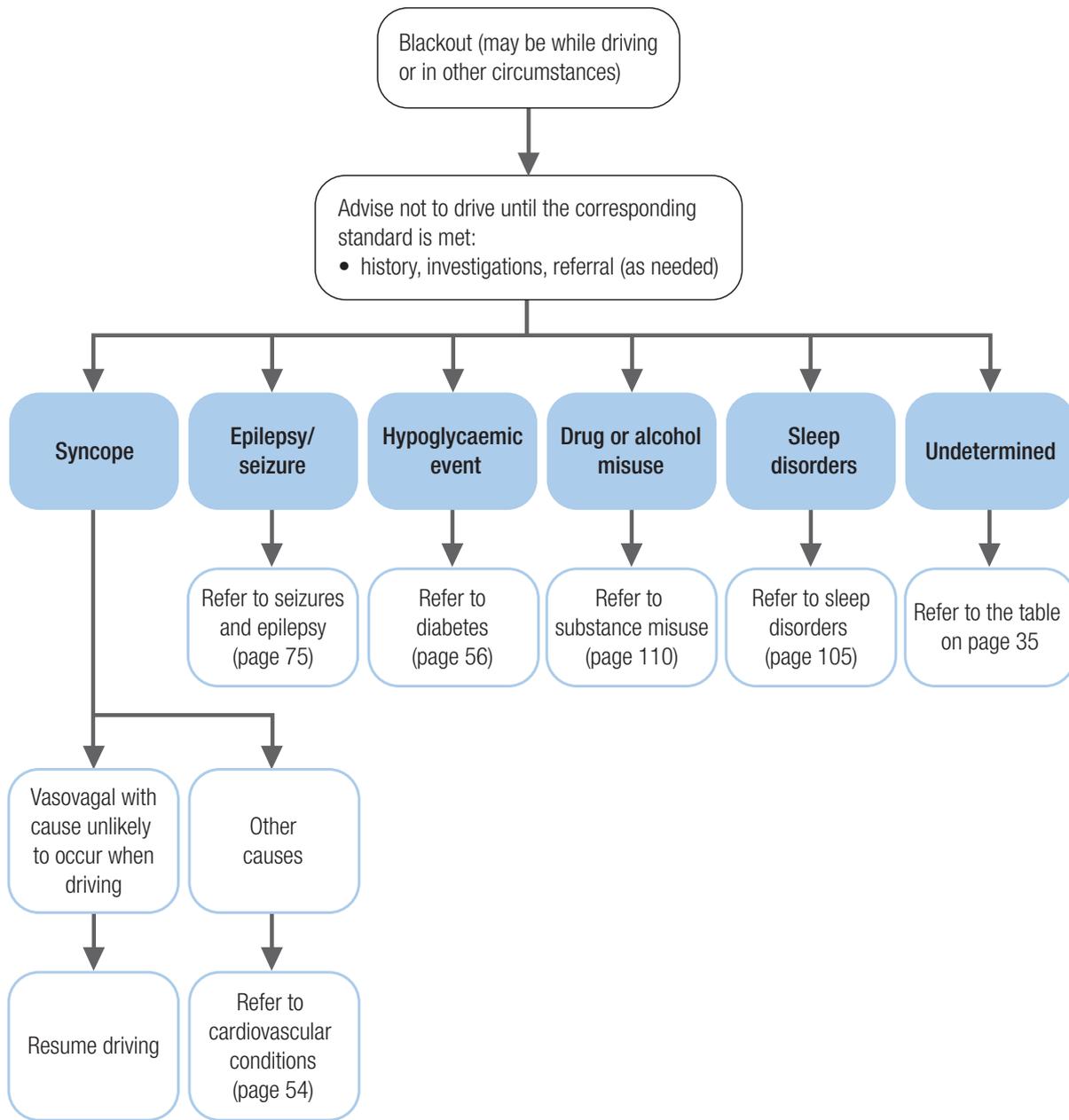
Despite extensive investigation, it is not always possible to determine whether the mechanism of a blackout is syncope, seizure, hypoglycaemia, sleep disorder or another condition. In such cases, fitness to drive should be assessed according to the table on page 35. As some of these cases will be seizures, the standards are similar to those that apply to seizures.

1.3 MEDICAL STANDARDS FOR LICENSING

Where a firm diagnosis has been made, the standard appropriate to the condition should be referred to in this publication (refer to Figure 6). For blackouts where, after investigation, it is not possible to diagnose one of the conditions covered elsewhere in this publication, refer to the criteria in the table on page 36.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

Figure 6: Management of blackouts and driving



MEDICAL STANDARDS FOR LICENSING – BLACKOUTS OF UNCERTAIN NATURE		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Blackouts (episode/s of impaired consciousness) of uncertain nature	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has experienced blackouts that cannot be diagnosed as syncope, seizure or another condition. <p>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:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least six months. <p>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:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least 12 months. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has experienced blackouts that cannot be diagnosed as syncope, seizure or another condition. <p>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:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least five years. <p>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:</p> <ul style="list-style-type: none"> there have been no further blackouts for at least 10 years.
Exceptional cases	<p>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:</p> <ul style="list-style-type: none"> 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. 	<p>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:</p> <ul style="list-style-type: none"> 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 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.

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 and visual impairment (refer to Part A section [4.5 Multiple conditions and age-related change](#)).

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 pages 8, 27).

Further reading

Sorajja D, Nesbitt GC, Hodge DO, Low PA, Hammill SC, Gersh BJ, Shen WK. Syncope while driving: clinical characteristics, causes, and prognosis. *Circulation*. 2009 Sep 15;120(11):928-34.

6.2 SEIZURES AND EPILEPSY

Refer also to section 1 [Blackouts](#), section 2 [Cardiovascular conditions](#) and section 3 [Diabetes mellitus](#).

6.2.1 Relevance to the driving task

Effects of seizures on driving

Seizures vary considerably, some being purely subjective experiences, for example, some focal seizures, but the majority involve some impairment of consciousness (e.g. absence and complex partial seizures) or loss of voluntary control of the limbs (e.g. focal motor and complex partial seizures). Convulsive (tonic-clonic) seizures may be generalised from onset or secondarily generalised with 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 risk¹

Most studies have reported an elevated crash risk among drivers with epilepsy, but the size of the risk varies considerably across the studies. The majority of studies have found that individuals 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 anti-epileptic medication as prescribed are at an increased risk for experiencing a crash.

6.2.2 General assessment and management guideline

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% of the population, with 0.5% affected and taking medication at any one time. The majority of cases respond well to treatment, with a terminal remission rate of 80% 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 individuals with well-managed epilepsy (as demonstrated by an appropriate seizure-free period and compliance with treatment) 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 their 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 more strict. 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/general practitioner may liaise with the driver licensing authority regarding whether the criteria are met for driving a private vehicle, but only a specialist may do so for a commercial vehicle driver.

Advice to licence holders

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

- The patient must continue to take anti-epileptic medication regularly when and as prescribed.
- The patient should ensure adequate sleep is had and not drive when sleep deprived.
- The patient should avoid circumstances, or the use of substances (e.g. 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 the treating doctor. Commercial vehicle drivers should be reviewed at least annually by a specialist regarding any conditional licence that has been issued.

Concurrent conditions

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

NEUROLOGICAL CONDITIONS

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. (Refer to section 6.4 Other neurological and neurodevelopmental conditions and Part A section 4.5 Multiple conditions and age-related change).

Loss of consciousness due to other causes

In cases where it is not possible to be certain that an episode of loss of consciousness is due to a seizure or some other cause, refer to section 1.2.2 Blackouts of underdetermined 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. This hierarchy comprises:

- a default standard, applicable to all cases of seizure, unless reductions are allowed (refer below and to the table on page 79)
- 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 79).

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 79).

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 for adherence 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 antiepileptic medication is to be withdrawn, the person should not drive (refer to table for details).

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 consideration of 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**

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 table page 79). 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 below).

- **Epilepsy treated for the first time**

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 anti-epileptic drug is started in a previously untreated person, sufficient 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 period of seizure freedom. 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.

- **Acute symptomatic seizures**

Acute symptomatic seizures are caused by a transient brain disorder or metabolic disturbance (e.g. encephalitis, hyponatraemia, hypoglycaemia, 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 resolution of the transient brain disorder. 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 a specialist in epilepsy.

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 recovery 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.

- **'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. For private vehicle drivers, where seizures occur only at a particular time of day (e.g. in the first hour after waking) a restricted 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 be relied upon only 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 and for these reasons, such seizures can be considered safe only in exceptional circumstances.

- **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.

NEUROLOGICAL CONDITIONS

- **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 or not a provoking factor was identified and can be reliably avoided (refer below). This applies only to private vehicle drivers.

In people with epilepsy, their seizures are often provoked by factors such as sleep deprivation, missed doses of anti-epileptic 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, such as sleep deprivation, unless severe, cannot be reliably avoided. Refer also *Medication noncompliance*.

- **Exceptional cases**

Where a medical specialist experienced in the management of 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

A number of other factors may influence the management of epilepsy with regards to driving and licensing. These include:

- epilepsy treated by surgery
- medication noncompliance
- cessation of anti-epileptic medication
- seizure causing a crash
- resumption of an unconditional licence.

These issues are discussed below and criteria are outlined in the table on page 79.

- **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 anti-epileptic medications*.

- **Medication noncompliance**

Compliance with medical advice regarding medication intake is a requirement for conditional licensing. Where noncompliance with medication is suspected by the treating doctor, the doctor may recommend to the driver licensing authority that the licence be granted conditional upon periodic drug-level monitoring. 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 standard for *Seizure in a person whose epilepsy has been previously well controlled*).

- **Withdrawal or dose reduction of one or more anti-epileptic medications**

In people who have had no seizures while taking anti-epileptic medication over a suitable period, the specialist may attempt a withdrawal of all anti-epileptic 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 (such as teratogenicity). The person should not drive for the full period of withdrawal or dose change and for 3 months thereafter. However, if the dose is being reduced only because of current side-effects, driving may continue. The person will already be on a conditional licence, thus notification of the driver licensing authority is not required.

For commercial vehicle drivers, if anti-epileptic 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 anti-epileptic medication except if the dose reduction is due only to the presence of side-effects (refer to page 83).

- **Seizure causing a crash**

Not all seizures carry the same risk of causing a crash. People who have been involved in a crash as a result of a seizure are likely to have a higher crash risk. If a person who has experienced a crash as a result of a seizure, the default seizure-free non-driving period applies, even if they fall into one of the categories that allows a reduction.

- **Resumption of an unconditional licence**

Where a person has had no seizures for at least five years and has taken no antiepileptic 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.

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person's fitness to drive.

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY		
<p>Step 1. Read 'All cases'. This applies to all people with seizures.</p> <p>Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.</p>		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
All cases: default standard		
<p>All cases (default standard)</p> <p>Applies to all people who have experienced a seizure.</p> <p>Exceptions may be considered only if the situation matches one of those listed below.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has experienced a seizure. <p>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:</p> <ul style="list-style-type: none"> • there have been no seizures for at least 12 months; and • the person follows medical advice, including adherence to medication if prescribed. <p>Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the remainder of this table.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> • if the person has experienced a seizure. <p>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:</p> <ul style="list-style-type: none"> • there have been no seizures for at least 10 years; and • the EEG shows no epileptiform activity; and • the person follows medical advice, including adherence to medication if prescribed. <p>Shorter seizure-free periods may be considered by the driver licensing authority if the person's situation matches one of those in the remainder of this table.</p>
Possible reductions in the non-driving seizure-free periods for a conditional licence		
<p>History of a benign seizure or epilepsy syndrome usually limited to childhood (e.g. febrile seizures, benign focal epilepsy, childhood absence epilepsy)</p>	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

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

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)		
<p>First seizure</p> <p>Note: Two or more seizures in a 24-hour period are considered a single seizure.</p>	<p>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 is met:</p> <ul style="list-style-type: none"> • there have been no further seizures (with or without medication) for at least six months. 	<p>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:</p> <ul style="list-style-type: none"> • there have been no seizures for at least five years (with or without medication); and • the EEG shows no epileptiform activity.
<p>Epilepsy treated for the first time</p> <p>This applies when anti-epileptic treatment has been started for the first time within the preceding 18 months.</p>	<p>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:</p> <ul style="list-style-type: none"> • the person has been treated for at least six months; and • there have been no seizures in the preceding six months; and • if any seizures occurred after the start of treatment, they happened only in the first six months after starting treatment and not in the last six months; and • the person follows medical advice, including adherence to medication. 	<p>There is no reduction. The default standard applies.</p>
<p>Acute symptomatic seizures</p> <p>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.</p>	<p>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:</p> <ul style="list-style-type: none"> • there have been no further seizures for at least six months. <p>If there have been two or more separate transient disorders causing acute symptomatic seizures, the default standard applies.</p>	<p>In exceptional circumstances, 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:</p> <ul style="list-style-type: none"> • there have been no further seizures for at least 12 months; and • the EEG shows no epileptiform activity. <p>If there have been two or more separate transient disorders causing acute symptomatic seizures, the default standard applies.</p>

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

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

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
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Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)

<p>'Safe' seizures</p> <p>These are defined as seizures that do not impair driving ability (which requires consciousness and ability to control the vehicle at all times). Consciousness must be verified by witnesses or video-EEG.</p>	<p>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:</p> <ul style="list-style-type: none"> • 'safe' seizures have been present for at least two years; and • there have been no seizures of other type for at least two years; and • the person follows medical advice, including adherence to medication if prescribed. <p>If the above criteria are not met, the default standard applies.</p>	<p>There is no reduction. The default standard applies.</p>
<p>Sleep-only seizures: seizures occurring only during sleep</p>	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>OR</p> <ul style="list-style-type: none"> • there have been previous seizures while awake but not in the preceding two years; and • sleep-only seizures have been occurring for at least two years; and • the person follows medical advice, including adherence to medication if prescribed. <p>If the above criteria are not met, the default standard applies.</p>	<p>There is no reduction. The default standard applies.</p>

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MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

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

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom.

Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)		
<p>Seizure in a person whose epilepsy was previously well controlled</p> <p>'Well controlled' is defined as: There were no seizures during the 12 months leading up to the last seizure.</p>	<p>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:</p> <ul style="list-style-type: none"> • 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 four weeks; and • the person follows medical advice, including adherence to medication (periodic serum drug level measurements may be required) <p>OR</p> <ul style="list-style-type: none"> • no cause for the seizure was identified; and • there have been no seizures for at least three months; and • the person follows medical advice, including adherence to medication. <p>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.</p>	<p>There is no reduction. The default standard applies.</p>
<p>Exceptional cases</p>	<p>Where a medical specialist experienced in the management of 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: (continued overleaf)</p>	<p>Where a specialist experienced in the management of epilepsy considers that a person with seizures or epilepsy who does not meet the standards for a conditional licence may be safe to drive, a conditional licence may be considered by the driver licensing authority, subject to at least annual review: (continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

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

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom. Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Possible reductions in the non-driving seizure-free periods for a conditional licence (cont'd)		
Exceptional cases (cont'd)	<ul style="list-style-type: none"> if the driver licensing authority, after considering information provided by a specialist experienced in the management of epilepsy, considers that the risk of a crash caused by a seizure is acceptably low; and the person follows medical advice, including adherence to medication if prescribed. 	<ul style="list-style-type: none"> if the driver licensing authority, after considering information provided by a specialist experienced in the management of epilepsy, considers that the risk of a crash caused by a seizure is acceptably low; and the person follows medical advice, including adherence to medication if prescribed.
Other factors that may influence licence status		
Epilepsy treated by surgery	<p>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:</p> <ul style="list-style-type: none"> there have been no seizures for at least 12 months following surgery. <p>The vision standard may also apply if there is a visual field defect.</p> <p>If medication is withdrawn, refer to <i>Planned withdrawal of all anti-epileptic medication</i>.</p>	<p>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:</p> <ul style="list-style-type: none"> there have been no seizures for at least 10 years; and the EEG shows no epileptiform activity; and the person follows medical advice with respect to medication adherence. <p>The vision standard may also apply if there is a visual field defect.</p> <p>If any anti-epileptic medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence.</p>
Medication noncompliance	Refer to text, page 78	Refer to text, page 78
Planned withdrawal of one or more anti-epileptic medications in a person who satisfies the standard to hold a conditional licence	<p>The person should not drive:</p> <ul style="list-style-type: none"> during the period in which the dose is being tapered; and for three months after the last dose. <p>(continued overleaf)</p>	<p>If any anti-epileptic medication is to be withdrawn, the person will no longer meet the criteria to hold a conditional licence.</p> <p>(continued overleaf)</p>

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MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

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

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom.

Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other factors that may influence licence status (cont'd)		
Planned withdrawal of one or more anti-epileptic medications in a person who satisfies the standard to hold a conditional licence (cont'd)	<p>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:</p> <ul style="list-style-type: none"> the previously effective medication regime is resumed; and there have been no seizures for four weeks after resuming the medication regime; and the person follows medical advice, including adherence to medication. <p>If seizures do not recur, the person may become eligible for an unconditional licence (refer to <i>Resumption of unconditional licence</i>).</p>	
Reduction in dosage of anti-epileptic medication in a person who satisfies the standard to hold a conditional licence	<p>The person should not drive:</p> <ul style="list-style-type: none"> during the period in which the dose reduction is being made; and for 3 months after completion of the dose reduction. <p>Driving may continue</p> <ul style="list-style-type: none"> if the dose reduction is due only to the presence of side-effects. <p>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:</p> <ul style="list-style-type: none"> 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. 	<p>If the dose of antiepileptic medication is to be reduced, the person will no longer meet the criteria to hold a conditional licence except:</p> <ul style="list-style-type: none"> if the dose reduction is due only to the presence of side-effects.

MEDICAL STANDARDS FOR LICENSING – SEIZURES AND EPILEPSY

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

Step 2. Look through the list of situations in the left column to see if the person matches one of these situations. If so, the driver licensing authority may consider a conditional licence after a shorter (reduced) period of seizure freedom.

Note that people are not eligible for a reduction if they have had a motor vehicle crash due to a seizure within the preceding 12 months. If withdrawal of all anti-epileptic medication is planned, refer to the relevant section of the table.

CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Other factors that may influence licence status (cont'd)		
Seizure causing a crash	If a person has experienced a crash 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 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.
Resumption of non-conditional licence	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: <ul style="list-style-type: none"> the person has had no seizures for at least five years; and has taken no antiepileptic medication for at least the preceding 12 months. 	Refer to text, page 78 Resumption of an unconditional commercial licence will not be considered.

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 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.

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 and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

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 pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010
<http://monashuniversity.mobi/muarc/reports/muarc300.html>
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3. Hansotia P and Broste SK. The effects of epilepsy or diabetes mellitus on the risk of automobile accidents. *N Engl J Med*, 1991; 324: 22–26.
4. Taylor J and Chadwick D. Risk of accidents in drivers with epilepsy. *J Neurol Neurosurg Psychiatr*, 1996; 60: 621–627.
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9. Somerville ER, Black AB, Dunne JW. Driving to distraction-certification of fitness to drive with epilepsy. *Med J Aust*. 2010 Mar 15; 192(6): 342-4.
10. Epilepsy and Driving in Europe. A report of the Second European Working Group on Epilepsy and Driving. 2005
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6.4 OTHER NEUROLOGICAL AND NEURODEVELOPMENTAL CONDITIONS

6.4.1 General assessment and management guidelines

The person with a neurological condition 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 (refer to [Appendix 9: Specialist driver assessors](#)).

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
- 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 sufficiently low 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). Cavemomas 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 4.9 Practical driver assessments). As the disorder is usually static, periodic review is not normally required.

Head Injury

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 the checklist above 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 posttraumatic stress disorder (PTSD). Clinical, neuropsychological or practical driver assessments may be helpful in determining fitness to drive (refer to Part A section 4.9 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.

Intellectual impairment (IQ less than 70)

The severity of intellectual impairment should be judged individually and will rely on appropriate professional advice, including neurological and neuropsychological advice. The driver licensing authority will require an assessment by a driver assessor before considering issue of a licence or conditional licence. If the degree of impairment is static, periodic review is not usually required. People with an IQ less than 70 are not eligible for a commercial vehicle licence.

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 and 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 licensing authority should be notified by the driver. Similarly, if there is long-term impairment of any of the functions listed on page 90, fitness to drive will need to be assessed (refer to section [6.4 Other neurological and neurodevelopmental conditions](#)).

Multiple sclerosis

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 on page 90. Vehicle modifications may be made to assist with some of these impairments; the advice of an occupational therapist may be helpful in this regard (refer to Part A section [4.9 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 [4.9 Practical driver assessments](#)).

Parkinson's disease

Parkinson's disease is a common, progressive disease that may affect driving in advanced stages² 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 (for example in patients with motor fluctuations, it would not be appropriate to assess 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 [4.9 Practical driver assessments](#)).

Stroke (cerebral infarction or intracerebral haemorrhage)

Stroke may impair driving ability either because of the long-term neurological deficit it produces or because of a recurrent stroke or transient ischaemic attack (TIA) at the wheel of a vehicle (refer below). Stroke and TIA rarely produce loss of consciousness. It is very uncommon for undiagnosed strokes or TIA to result in motor vehicle crashes. When they do, it is usually due to an unrecognised visual field deficit. The risk of recurrent stroke is probably highest in the first month after the initial stroke but is still sufficiently low (about 10% in the first year) that it does not on its own require suspension of driving. However, fatigue and impairments in concentration and attention are common after stroke (even in those with no persisting neurological deficits) and may impair the ability to perform the driving task, particularly for commercial vehicle drivers. For this reason, there should be a non-driving period after stroke, even in those with no detectable persisting neurological deficit. For those with a persistent neurological deficit, subsequent driving fitness will depend on the extent of impairment of the functions listed in the checklist on page 90. A practical driver assessment may be required (refer to Part A section [4.9 Practical driver assessments](#)). The vision standard may also apply (refer to section [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](#)). People who have made a full neurological recovery do not require a conditional licence.

Transient ischaemic attack (TIA) (advisory)

TIA's can be single or recurrent and may be followed by stroke. They may impair driving ability if they occur at the wheel of a motor vehicle. However, as TIA rarely produces loss of consciousness, it is an extremely uncommon cause of crashes. The risk of a further TIA or stroke is about 15% in the first three months and about half of that risk occurs in the first week. In view of the low risk of

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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 [4.3 Temporary conditions](#)).

Subarachnoid haemorrhage

Driving should be restricted if the person has had a subarachnoid haemorrhage. 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 on page 90. The vision standard may also 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 94). A practical driver assessment may be considered (refer to Part A section [4.9 Practical driver assessments](#)).

Space-occupying lesions including brain tumours

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 on page 90. 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 93).

6.4.2 Medical standards for licensing

Requirements for unconditional and conditional licences are outlined in the table on page 93 (in alphabetical order) including standards for:

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

It is important that health professionals familiarise themselves with both the general information above and the tabulated standards before making an assessment of a person’s fitness to drive.

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Aneurysms (unruptured intracranial aneurysms) and other vascular malformations of the brain (refer also to subarachnoid haemorrhage, page 97)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an unruptured intracranial aneurysm or other vascular malformation at high risk of major symptomatic haemorrhage. <p>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:</p> <ul style="list-style-type: none"> the response to treatment. <p>If treated surgically, the intracranial surgery advice applies (page 94).</p> <p>If the person has had a seizure, the seizure and epilepsy standards apply (refer to section 6.2 Seizures and epilepsy)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has an unruptured intracranial aneurysm or other vascular malformation. <p>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:</p> <ul style="list-style-type: none"> the risk of major symptomatic haemorrhage; and the response to treatment. <p>If treated surgically, the intracranial surgery advice applies (page 94).</p> <p>If the person has had a seizure, the seizure and epilepsy standards apply (refer to section 6.2 Seizures and epilepsy).</p>
<p>Cerebral palsy (refer also to neuromuscular, page 95 and/or intellectual disability, page 94)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has cerebral palsy producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modifications. <p>Periodic review is not required if the condition is static.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has cerebral palsy producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modifications. <p>Periodic review is not required if the condition is static.</p>

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MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Head injury (refer also to intracranial surgery, below)	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had head injury producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task 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 the results of neuropsychological testing if indicated the results of a practical driver assessment if required. <p>Periodic review is not required if the condition is static.</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had head injury producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task 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 the results of neuropsychological testing if indicated the results of a practical driver assessment if required. <p>Periodic review is not required if the condition is static.</p>
Intellectual disability	<p>A practical driver assessment is required for all people with IQ less than 70. Refer to Part A section 4.9 Practical driver assessments.</p> <p>Periodic review is not usually required if the condition is static.</p>	<p>People with an IQ less than 70 are not eligible for a commercial vehicle licence.</p> <p>For those with milder degrees of intellectual impairment, a practical driver assessment should be considered.</p> <p>Periodic review is not usually required if the condition is static.</p>
Intracranial surgery (advisory only)	<p>A person should not drive for six months following supratentorial surgery or retraction of the cerebral hemispheres.</p> <p>If there are seizures or long-term neurological deficits, refer to section 6.2 Seizures and epilepsy or page 98.</p>	<p>A person should not drive for 12 months following supratentorial surgery or retraction of the cerebral hemispheres.</p> <p>If there are seizures or long-term neurological deficits, refer to section 6.2 Seizures and epilepsy or page 98.</p>

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Multiple sclerosis	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has multiple sclerosis and significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has multiple sclerosis. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification.
Neuromuscular conditions (peripheral neuropathy, muscular dystrophy, etc.)	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has peripheral neuropathy, muscular dystrophy or any other neuromuscular disorder that significantly impairs muscle power, sensation or coordination. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification. 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has peripheral neuropathy, muscular dystrophy or any other neuromuscular disorder that significantly impairs muscle power, sensation or coordination. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments) the need for vehicle modification.

NEUROLOGICAL CONDITIONS

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Parkinson's disease	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has Parkinson's disease with significant impairment of movement or reaction time or the onset of dementia. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor regarding the likely impact of the neurological impairment on driving ability and the response to treatment the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). 	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has Parkinson's disease. <p>A conditional licence may be considered by the driver licensing authority subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability and the response to treatment the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).
Stroke (cerebral infarction or intracerebral haemorrhage)	<p>A person should not drive for at least four weeks following a stroke.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a stroke producing significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority at least four weeks after a stroke and subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). 	<p>A person should not drive for at least three months following a stroke.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a stroke. <p>A conditional licence may be considered by the driver licensing authority after at least three months and subject to at least annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist regarding the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination, vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).
Transient ischaemic attack (advisory only)	<p>A person should not drive for at least two weeks following a TIA.</p> <p>A conditional licence is not required.</p>	<p>A person should not drive for at least four weeks following a TIA.</p> <p>A conditional licence is not required.</p>

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
<p>Space-occupying lesions (including brain tumours) (refer also to intracranial surgery, page 94)</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a space-occupying lesion that results in significant impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields). <p>A conditional licence may be considered by the driver licensing authority subject to periodic review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor about the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>If seizures occur, the standards for seizures and epilepsy apply (refer to section 6.2 Seizures and epilepsy).</p> <p>If surgically treated, the advice for intracranial surgery applies (page 94).</p>	<p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a space-occupying lesion. <p>A conditional licence may be considered by the driver licensing authority subject to annual review, taking into account:</p> <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). <p>If seizures occur, the standards for seizures and epilepsy apply (refer to section 6.2 Seizures and epilepsy).</p> <p>If surgically treated, the advice for intracranial surgery applies (page 94).</p>
<p>Subarachnoid haemorrhage (refer also to aneurysms, page 93)</p>	<p>A person should not drive for at least three months after a subarachnoid haemorrhage.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a subarachnoid haemorrhage. <p>(continued overleaf)</p>	<p>A person should not drive for at least six months after a subarachnoid haemorrhage.</p> <p>A person is not fit to hold an unconditional licence:</p> <ul style="list-style-type: none"> if the person has had a subarachnoid haemorrhage. <p>(continued overleaf)</p>

MEDICAL STANDARDS FOR LICENSING – NEUROLOGICAL CONDITIONS		
CONDITION	PRIVATE STANDARDS (Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 11).	COMMERCIAL STANDARDS (Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 11).
Subarachnoid haemorrhage (con't) (refer also to aneurysms, page 93)	A conditional licence may be considered by the driver licensing authority, after three months and subject to periodic review , taking into account: <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). 	A conditional licence may be considered by the driver licensing authority, after six months and subject to periodic review , taking into account: <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist about the level of impairment of any of the following: visuospatial perception, insight, judgement, attention, reaction time, memory, sensation, muscle power, coordination and vision (including visual fields) and the likely impact on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments).
Other neurological conditions	A person is not fit to hold an unconditional licence : <ul style="list-style-type: none"> if the person has a neurological disorder that significantly impairs any of the following: visuospatial perception, insight, judgement, attention, 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: <ul style="list-style-type: none"> the nature of the driving task information provided by the treating doctor about the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 Practical driver assessments). Periodic review may not be necessary if the condition is static.	A person is not fit to hold an unconditional licence : <ul style="list-style-type: none"> if the person has a neurological disorder that significantly impair any of the following: visuospatial perception, insight, judgement, attention, 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: <ul style="list-style-type: none"> the nature of the driving task information provided by an appropriate specialist about the likely impact of the neurological impairment on driving ability the results of a practical driver assessment if required (refer to Part A section 4.9 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 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.

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 and visual impairment (refer to Part A section 4.5 [Multiple conditions and age-related change](#)).

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 pages 8, 27).

References and further reading

1. Influence of chronic illness on crash involvement of motor vehicle drivers, 2nd edition. Monash University Accident Research Centre. November 2010 <http://monashuniversity.mobi/muarc/reports/muarc300.html>
2. Wood JM, Worringham C, Kerr G, Mallon K, Silburn P, Quantitative assessment of driving performance in Parkinson's disease. *J Neurol Neurosurg Psychiatry*, 2005; 76:176–180.
3. Hawley CA, Return to driving after head injury. *Journal of Neurology, Neurosurgery and Psychiatry*, 2001; 70(6), 761–766.
4. Heikkila VM et al, Decreased driving ability in people with Parkinson's disease. *Journal of Neurology, Neurosurgery and Psychiatry*, 1998; 64(3), 325–330.