

ASSESSING FITNESS TO DRIVE

FOR COMMERCIAL AND PRIVATE VEHICLE DRIVERS

MEDICAL STANDARDS FOR LICENSING

AND

CLINICAL MANAGEMENT GUIDELINES

A RESOURCE FOR HEALTH PROFESSIONALS IN AUSTRALIA

Approved by the Australian Transport Council
and endorsed by all Australian Driver Licensing Authorities



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8 EPILEPSY

8.1 RELEVANCE TO DRIVING TASK

8.1.1 Epilepsy is a common disorder with a cumulative incidence of 2% of the population, with 0.5% affected and taking medication at any one time⁵. Fortunately, the majority of cases respond well to treatment with a terminal remission rate of 80% or more⁵⁻¹¹. 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^{8,10}. Some cases may eventually cease medication and in other selected cases surgery has proven beneficial.

Seizures vary considerably, some being purely subjective experiences, e.g. some simple partial seizures, but the majority involve some impairment of consciousness (e.g. absence and complex partial seizures) or loss of control (e.g. focal motor, simple or complex partial or myoclonic seizures). Convulsive (tonic-clonic) seizures may be generalised from onset or secondarily generalised with partial 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^{12,13}.

8.1.2 Estimates of the relative casualty crash risk of drivers with epilepsy compared with other drivers has varied from 1.0 to 1.95¹⁴⁻¹⁶ (and in one exceptional study 7.0¹⁷). Around 11% of crashes of drivers with epilepsy are felt to be seizure-related¹⁴. Reported estimates of the prevalence of epilepsy-related crashes vary between 0.01% and 0.3% of all crashes^{2, 18-22}.

8.1.3 Complex partial seizures without aura, secondarily generalised seizures and generalised tonic-clonic seizures are the types most implicated in crashes. Simple partial seizures, complex partial seizures with aura and absence seizures are less frequently, and myoclonic seizures are rarely implicated²³. Some patients may have seizures that are 'safe' from the point of view of driving. Examples include seizures that have occurred only during sleep, some, but not all, simple partial seizures ('auras'), and seizures that are consistently preceded by a prolonged warning or premonition (provided that full control is retained during the period of such premonitory symptoms)¹³. There are also examples where seizures only occur at a particular time of day, especially in the first hour after awakening. A restricted licence may be acceptable in such instances (see 8.3.4).

8.1.4 While driving is a privilege rather than a right, the lack of a driving licence can be socially disabling. Ease of transport is diminished and there are restrictions of opportunity for employment, recreation and independent living: the lack of a licence may also impair the capacity to engage in financial and commercial transactions. The criteria applied to private vehicle licences are based upon the concept of what is an acceptable risk, i.e. that which may be directly attributed to the potential for a seizure, a risk that is additional to the background risk for motor vehicle crashes that all drivers will have. Such background risk varies greatly, being dependent upon age, gender and driving experience^{1,24}, and this variation colours the approach for an acceptable seizure-related crash-risk. In Australian conditions and with criteria applied over many years the contribution of seizures to accident statistics is only 0.025–0.053%, which is clearly acceptable²².

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 involving commercial vehicles. For this reason, the acceptable risk of an illness-related accident for commercial driving is much less, and because it is reasonable to anticipate a degree of flexibility in employment opportunity the criteria applied are much stricter. As a rough guide, for private licences they correspond to a seizure-risk of about 20–50% p.a., compared with about 1–2% p.a. for commercial licences and 2–4% pa for restricted commercial licences. Some lenience in the last group is envisaged for those who need a commercial licence but whose driving of large and potentially damaging vehicles is restricted or unnecessary²⁵.

8.2 GENERAL MANAGEMENT GUIDELINES

8.2.1 In general, responsible individuals with well-managed epilepsy (as demonstrated by an appropriate seizure-free period) may be considered fit to drive by the Driver Licensing Authority. Individual responsibility on the patient's behalf means personal accountability for management of their condition in conjunction with the support of a medical practitioner. The authorities will rely heavily on the treating practitioner's and/or consultant's reports.

8.2.2 It is extremely important that the patient's specific epilepsy syndrome and seizure types are identified so that an adequate evaluation of the person's driving safety can be undertaken (including the risk of further seizures) and the appropriate therapy instituted. **Thus any licence-holder experiencing a seizure or recurrent seizures should be referred to an appropriate consultant for detailed evaluation.**

It is crucial that the following aspects of disease management be taken into account in the assessment of driver fitness:

- The patient must have been free of seizures for the specified period (see medical standards below).
- The patient must continue to take anti-epileptic medication regularly when and as prescribed.

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- The patient should ensure adequate sleep is had and not drive if sleep deprived.
- The patient should avoid other circumstances or the use of substances that are known to increase the risk of seizures.

8.2.3 All licence holders who need active management of epilepsy should be under periodic review, including, where necessary, at least annual specialist appraisal.

8.3 MEDICAL STANDARDS FOR LICENSING

8.3.1 Medical standards for licensing and the requirements for conditional licences are outlined in the table (page 57). A confirmed diagnosis of epilepsy will mean that the criteria for an unconditional licence are not met either for a private or a commercial driver. The table outlines recommended seizure-free periods after which resumption of driving under a conditional licence may be permitted by the Driver Licensing Authority on the advice of a suitably qualified consultant. In considering the recommended seizure-free period, the Driver Licensing Authority will generally accept the longer period, but may consider a shorter period on the recommendation of a consultant experienced in the management of epilepsy. Relevant considerations will include response to treatment, previous seizure frequency, the nature of seizures, the syndromal diagnosis and the patient's reliability and compliance with treatment. Further considerations, particularly in the case of commercial drivers, may be the size and condition of the vehicle, duties to be performed and the hours to be worked (for example, the requirements of an occasional driver in a farming situation versus those of a multiple combination vehicle driver).

8.3.2 **The initial or isolated seizure.** The occurrence of a seizure in the holder of any licence warrants consultant assessment. The assessment may reveal that the seizure was likely to have been an isolated event, or alternatively a diagnosis of epilepsy may be made.

Whether due to epilepsy or any other cause, an isolated seizure in a commercial vehicle driver presents a considerable risk and will require immediate notification of the Driver Licensing Authority by the driver, and suspension of driving (see table).

In the case of a private vehicle driver, the consultant should advise the patient not to drive until the diagnosis is determined and a decision can be made regarding their future licence status. Should the seizure be judged to be an isolated event the recommended non-driving period is 6 months (see table). It is important for Driver Licensing Authorities to acknowledge that an isolated seizure is not necessarily synonymous with epilepsy, and administrative and reporting systems should reflect this in order to avoid the stigma often associated with a diagnosis of epilepsy.

Should a diagnosis of epilepsy be made the patient should be managed accordingly. The table overleaf specifies non-driving periods for drivers diagnosed with epilepsy.

8.3.3 **Recurrent seizure.** In the event of a recurrent seizure in a person previously seizure-free and on a conditional licence, a consultant review should be obtained; in remote areas the GP should initially consult the neurologist by phone. In the case of a private vehicle driver, where a clear and reversible or non-recurring provocation is identified and overcome and/or corrected (e.g. illness, drug-interaction, sleep deprivation or antiepileptic medication-withdrawal) driving should be suspended for 1 month. If no clear cause is determined driving should be suspended for 3 months. A recurring seizure in a commercial vehicle driver will require immediate notification to the Driver Licensing Authority by the driver and suspension of driving.

8.3.4 **'Safe seizures'.** Where seizures occur only at a particular time of day (e.g. in the first hour after awakening) a restricted licence, limiting driving to certain hours or circumstances, may be acceptable. It is essential that patients experiencing such 'safe' or possibly 'safe' seizures be the subject of consultant review and that their assessment includes appropriate documentation of the factors that are important to their driving safety, and the corroboration of eye witnesses whenever possible.

8.3.5 **Medication non-compliance.** Where non-compliance with medication is suspected by the treating doctor, the doctor may recommend to the Driver Licensing Authority a driver licence conditional upon periodic medical review, including drug-level-monitoring where appropriate.

8.3.6 **Withdrawal of anti-epileptic medication.** In patients stabilised on anti-epileptic medication over a suitable period, the consultant may attempt a withdrawal of that medication. The patient should not drive for the full period of withdrawal of anti-epileptic medication and for 3 months thereafter unless withdrawal is advised by an experienced consultant on the basis that the risk of seizure-recurrence is low. The patient will already be on a conditional licence, thus notification of the Driver Licensing Authority is not required. Should the medication withdrawal be successful, as demonstrated by an extensive seizure-free period, the treating consultant may support an application to the Driver Licensing Authority to grant an unconditional licence. For commercial vehicle drivers, withdrawal of anti-epileptic medication is not compatible with continued driving (refer to the table).

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

MEDICAL STANDARDS FOR LICENSING – EPILEPSY

CONDITION	PRIVATE STANDARDS <i>(Drivers of cars, light rigid vehicles or motorcycles unless carrying public passengers or bulk dangerous goods – refer to definition, page 6).</i>	COMMERCIAL STANDARDS <i>(Drivers of heavy vehicles, public passenger vehicles or bulk dangerous goods vehicles – refer to definition, page 6).</i>
<p>Initial or Isolated Seizures (an isolated seizure is not necessarily synonymous with Epilepsy)</p>	<p>A person who has had an initial or isolated seizure should be advised not to drive pending confirmation of diagnosis.</p> <p>Should the seizure be diagnosed as an isolated event, a non-driving period of 6 months should be recommended (shorter periods may be recommended by consultants experienced in the management of epilepsy).</p> <p>If epilepsy is confirmed or seizures recur the patient should be managed as for recently diagnosed epilepsy (see below) and should notify the Driver Licensing Authority.</p>	<p>The criteria for an unconditional licence are NOT met:</p> <ul style="list-style-type: none"> ● If the person has had a seizure due to any cause. <p>A conditional licence may be granted by the Driver Licensing Authority taking into account the opinion of a specialist in epilepsy and the size and condition of the vehicle, the duties to be performed and the hours to be worked (with conditions that may include limited and/or restricted use):</p> <ul style="list-style-type: none"> ● If the person has had a single provoked seizure event; and ● Provocative factors can be avoided reliably; and ● Has been seizure free for one year; and ● Takes no anti-epileptic medication; and ● The EEG shows no epileptiform activity.
<p>Epilepsy – general requirements</p>	<p>The criteria for an unconditional licence are NOT met:</p> <ul style="list-style-type: none"> ● If the person has epilepsy. <p>A conditional licence may be granted by the Driver Licensing Authority after seizure-free periods as shown below and subject to at least annual review (shorter periods may be recommended by consultants experienced in the management of epilepsy). The Driver Licensing Authority will take into account the opinion of the treating doctor/GP regarding the response to treatment and the driving requirements.</p> <p>Seizure free periods:</p> <p>Recently diagnosed epilepsy. Seizure-free period of 6 months from start of therapy (or 3 months on the recommendation of an experienced consultant).</p> <p>Chronic epilepsy (history of previously uncontrolled seizures). Generally a seizure-free period of 2 years. A shorter period only on recommendation of an experienced consultant where there is clear evidence of seizure control (e.g. following adjustment and stabilisation of anti-epileptic drug treatment).</p>	<p>The criteria for an unconditional licence are NOT met:</p> <ul style="list-style-type: none"> ● If the person has epilepsy. <p>A conditional licence may be granted by the Driver Licensing Authority taking into account the opinion of a specialist in epilepsy (who may recommend variation of the seizure-free periods in exceptional circumstances), and the nature of the driving task, and subject to periodic review:</p> <ul style="list-style-type: none"> ● If the person has a past history of febrile seizures or of benign childhood epilepsy; and ● Does not take anti-epileptic medication; and ● The EEG shows no epileptiform activity. <p>OR</p> <ul style="list-style-type: none"> ● If the person has a past history of a single seizure event; or of seizures occurring only under provocative circumstances that can be avoided reliably; and ● Has been seizure free for five years; and ● Takes no anti-epileptic medication; and ● The EEG shows no epileptiform activity.

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MEDICAL STANDARDS FOR LICENSING – EPILEPSY (continued)

CONDITION	PRIVATE STANDARDS	COMMERCIAL STANDARDS
<p>Epilepsy – general requirements (continued)</p>	<p><i>Seizures only in sleep.</i> Seizure-free period of 12 months since the last seizure whilst awake.</p> <p><i>Epilepsy treated by surgery.</i> A period of 12 months following surgery.</p>	<p>OR</p> <ul style="list-style-type: none"> ● If the person has epilepsy and is taking anti-epileptic medication; and ● Maintains at least annual review and compliance; and ● Has been seizure free for five years; and ● Has had no more than three seizures in the preceding ten years; and ● The EEG shows no epileptiform activity. <p>OR</p> <ul style="list-style-type: none"> ● If the person has epilepsy and has had surgical treatment; and ● Maintains at least annual review; and ● Has been seizure free for five years; and ● The EEG shows no epileptiform activity. <p>OR</p> <p>Taking into account the size and condition of the vehicle, the duties to be performed and the hours to be worked (with conditions including limited and/or restricted use):</p> <ul style="list-style-type: none"> ● If the person has epilepsy and is taking anti-epileptic medication; and ● Maintains periodic review and compliance; and ● Has been seizure free for five years; and ● The EEG shows no epileptiform activity. <p>OR</p> <p>Taking into account the size and condition of the vehicle, the duties to be performed and the hours to be worked (with conditions including limited and/or restricted use):</p> <ul style="list-style-type: none"> ● If the person has had a single provoked seizure event; and ● Provocative factors can be avoided reliably; and ● Has been seizure free for one year; and ● Takes no anti-epileptic medication; and ● The EEG shows no epileptiform activity.
<p>Epilepsy – special situations</p>	<p>Recurrent Seizure. If a person on a conditional licence, who has previously been well controlled, has a recurrence of a seizure due to an identifiable and non-recurring provocation such as illness,</p>	<p>Recurrent Seizure. Recurrence of seizure in a commercial vehicle driver requires immediate suspension of driving and reporting to the Driver Licensing Authority by the driver.</p>

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MEDICAL STANDARDS FOR LICENSING – ELIPEPSY (continued)

CONDITION	PRIVATE STANDARDS	COMMERCIAL STANDARDS
<p>Epilepsy – special situations (continued)</p>	<p>drug interaction or sleep deprivation, they should not drive for 1 month. If the cause is not identified the patient should not drive for 3 months.</p> <p>If a person on a conditional licence has a seizure causing a motor vehicle crash, they should not drive for at least 1 year and a consultant opinion is essential. The Driver Licensing Authority should be notified.</p> <p>Withdrawal of Anti-epileptic Medication</p> <p>The person should not drive for the full period of withdrawal and for 3 months thereafter. Where withdrawal is on the recommendation of a consultant experienced in the management of epilepsy on the basis that the risk of seizure-recurrence is low, driving need not be curtailed.</p> <p>Should there be a recurrence of seizures, the person should not drive for 1 month after resuming previously effective medication.</p> <p>If the patient refuses to resume medication they should not drive for 2 years (shorter periods may be recommended by consultants experienced in the management of epilepsy).</p> <p>Generally a person who is being considered for withdrawal of medication will be on a conditional licence and the Driver Licensing Authority need not be notified of a program of withdrawal of medication.</p>	<p>Withdrawal of Anti-epileptic Medication</p> <p>Withdrawal of medication is not compatible with continued driving of commercial vehicles.</p>

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

Where a conditional licence is recommended practitioners must provide to the Driver Licensing Authority details of the criteria not 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 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 patient and when providing advice to the Driver Licensing Authority.

The presence of other medical conditions

While a patient may meet individual disease criteria, concurrent medical conditions may combine to affect on fitness to drive, e.g. hearing and visual impairment (refer to Multiple Disabilities, page 22, Older Drivers, page 76).

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 practitioner may themselves advise the Driver Licensing Authority as the situation requires (refer to pages 10, 17).

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