

ASSESSING FITNESS TO DRIVE

GUIDELINES AND STANDARDS FOR HEALTH PROFESSIONALS IN AUSTRALIA

SECOND EDITION



AUSTROADS

CARS ● MOTORCYCLES ● LIGHT TRUCKS

Assessing Fitness to Drive

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ASSESSING FITNESS TO DRIVE

GUIDELINES AND STANDARDS FOR HEALTH PROFESSIONALS IN AUSTRALIA

Approved by all Australian Driver Licensing Authorities
for assessing fitness to drive private motor cars, motorcycles,
and rigid trucks up to 8 tonnes gross vehicle mass



AUSTROADS

JANUARY 2001

AUSTROADS PROFILE

Austrroads is the association of Australian and New Zealand road transport and traffic authorities whose purpose is to contribute to the achievement of improved Australian and New Zealand transport related outcomes by:

- developing and promoting best practice for the safe and effective management and use of the road system
- providing professional support and advice to member organisations and national and international bodies
- acting as a common vehicle for national and international action
- fulfilling the role of the Australian Transport Council's Road Modal Group
- undertaking performance assessment and development of Australian and New Zealand standards
- developing and managing the National Strategic Research Program for roads and their use.

Within this ambit, Austrroads aims to provide strategic direction for the integrated development, management and operation of the Australian and New Zealand road system — through the promotion of national uniformity and harmony, elimination of unnecessary duplication, and the identification and application of world best practice.

AUSTROADS MEMBERSHIP

Austrroads membership comprises the six State and two Territory road transport and traffic authorities and the Commonwealth Department of Transport and Regional Services in Australia, the Australian Local Government Association and Transit New Zealand. It is governed by a council consisting of the chief executive officer (or an alternative senior executive officer) of each of its eleven member organisations:

- Roads and Traffic Authority New South Wales
- Roads Corporation Victoria
- Department of Main Roads Queensland
- Main Roads Western Australia
- Transport South Australia
- Department of Infrastructure, Energy and Resources Tasmania
- Department of Transport and Works Northern Territory
- Department of Urban Services Australian Capital Territory
- Commonwealth Department of Transport and Regional Services
- Australian Local Government Association
- Transit New Zealand

The success of Austrroads is derived from the synergies of interest and participation of member organisations and others in the road industry.

ENDORSEMENTS

These guidelines have the approval of:

All Australian Driver Licensing Authorities
Australasian College for Emergency Medicine
Australasian Faculty of Occupational Medicine
Australasian Sleep Association
Australian Association of Neurologists
Australian Association of Occupational Therapists
Australian Diabetes Society
Australian Medical Association
Australian and New Zealand College of Anaesthetists
Australian Orthopaedic Association
Australian Rheumatology Association
Australian Society for Geriatric Medicine
Australian Society of Otolaryngology Head and Neck Surgery
Cardiac Society of Australia and New Zealand
Clinical Oncology Society of Australia
Epilepsy Society of Australia
Neurosurgical Society of Australasia
Optometrists Association Australia
Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Royal Australasian College of Physicians
Royal Australasian College of Surgeons
Royal Australia and New Zealand College of Psychiatrists
Royal Australian College of General Practitioners
Royal Australian College of Ophthalmologists
Stroke Society of Australia

LEGAL DISCLAIMER

All reasonable care has been taken in compiling these guidelines and standards, specifically by relying upon advice provided by relevant associations of health professionals, and Austroads believes them to be correct at the time of printing. However, neither Austroads nor the authors accept responsibility for any consequences arising from their application.

Health professionals should keep themselves up to date with significant changes in health therapy and technology that may influence their assessment of drivers and with legislation that may affect the duty of either the health professional or the patient.

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FOREWORD

The Austroads Council has endorsed this book of guidelines and standards to assist health professionals in assessing a person's fitness to drive. The book represents the latest set of national uniform standards and guidelines and has been developed by Austroads through extensive consultation with all key stakeholders.

The book aims to assist health professionals in assessing the fitness to drive of any patient who holds, or wishes to obtain a driver licence for a car, a motorcycle or a light rigid truck.

Replacing all previous fitness to drive guidelines, this book has been approved by all Australia's driver licensing authorities and is endorsed by all national health professional colleges and associations.

Most Australian States and Territories have now passed legislation that requires drivers to report to their driver licensing authority any condition from which they suffer that may have a long term effect on their driving. It follows that drivers will rely more heavily upon advice from health professionals on their continuing ability to drive safely.

A range of medical conditions and, in some cases, the treatments for them may impair driving and increase the risk of a crash involving not only the patient but possibly others. A key ingredient in the reduction of Australia's road toll has been the cooperation of all levels of government and the community. This cooperation has reduced road fatalities from eight per 100,000 vehicles in 1970 to two per 100,000 vehicles by 1997. Further reductions depend on continuing cooperation in initiatives such as this one.

These guidelines are made available free of charge to relevant health professionals. They are also available on the internet at www.austroads.com.au.

In publishing this book, Austroads seeks the cooperation of the health professions in further reducing road trauma in Australia.



Robin Dunlop
Chairman, AUSTRROADS

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PART A: GENERAL INFORMATION

1 PURPOSE AND STATUS OF THESE GUIDELINES

- 1.1 **The primary purpose of this publication is to increase road safety in Australia by assisting health professionals to promote the responsible driving behaviour of their patients having regard to their medical fitness.**
- 1.2 Driving a motor vehicle is a complex task involving perception, good judgement, adequate response time and reasonable physical capability. A range of medical conditions, as well as certain treatments, may impair any of these factors. Impairment may affect driving ability adversely, possibly resulting in a crash causing injury or death.
- 1.3 The responsibility for road safety and for driver licensing in the States and Territories of Australia and in New Zealand lies with the respective driver licensing authorities. This booklet is designed for medical and other health professionals who may assist their driving patients or be asked to advise the driver licensing authorities concerning drivers under their care whose medical conditions have the potential to impair their driving safety.
- 1.4 **Health professionals as well as drivers have a responsibility to ensure that compromised fitness to drive does not result in an unacceptably increased risk to the drivers themselves or other members of the public.**
- 1.5 This second edition replaces the first edition, dated 1998. It represents the latest set of national uniform guidelines on the fitness to drive of private vehicle drivers and is approved by the driver licensing authorities of all States and Territories for use throughout Australia.
- 1.6 These guidelines and standards are intended to provide a primary source of criteria for State and Territory driver licensing authorities in assessing fitness to drive. They are also intended as a primary reference for health professionals.
- 1.7 Individual States and Territories have requirements additional to the national guidelines. For example, in New Zealand, the Northern Territory and South Australia, laws exist that require certain health professionals to notify the local driver licensing authority concerning drivers under their care whose medical conditions impair their driving to the extent where they are likely to endanger the public. Health professionals in Northern Territory and South Australia are advised to obtain up-to-date information from the local driver licensing authorities. Contact information appears on page 74 of this book.

2 ROUTINE USE OF THE GUIDELINES

2.1 WHO SHOULD USE THIS BOOK?

- Medical General Practitioners
- Medical Specialists
- Optometrists
- Psychologists
- Physiotherapists
- Occupational Therapists
- Other health professionals dealing with clients who suffer from conditions that may affect their ability to drive safely.

2.2 WHY SHOULD THIS BOOK BE USED?

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

2.3 WHEN SHOULD THIS BOOK BE USED?

- 2.3.1 This book should be used when treating any patient who holds a licence for a light motor vehicle including:
- a car (C)
 - a motorcycle (R)
 - a light rigid (LR) (see next table for explanation)

2.4 WHAT IF THE PATIENT DRIVES SOME OTHER VEHICLE?

- 2.4.1 If a patient drives any other class of vehicle, consult:
- *Medical Examinations of Commercial Vehicle Drivers*, published by the National Road Transport Commission and the Federal Office of Road Safety (now known as the Australian Transport Safety Bureau). This book can be obtained from the National Road Transport Commission, whose address appears on page 74.
- 2.4.2 It is important to note that the class of driver licence held will usually determine which book should be used. This book should be used for drivers with a driver licence class C, R or LR. Where a driver has a driver licence of class MR, HR, HC or MC, or where the driver drives a taxi, hire car, delivery van, truck, bus, or is a chauffeur or is otherwise engaged in driving for a living, the book *Medical Examinations of Commercial Vehicle Drivers* should be used in determining fitness to drive the commercial vehicle. As a general rule, the book *Medical Examinations of Commercial Vehicle Drivers* should be used where the patient drives a vehicle commercially, even if it is a car or a light truck.

2.5 WHICH BOOK SHOULD BE USED?

- 2.5.1 If the health professional is unsure which book to use, check the categories shown on the patient's licence under 'Licence Type' or 'Licence Class', then consult the table below.
- 2.5.2 Generally, the guidelines for commercial vehicle drivers are more stringent than those for drivers of private vehicles. Thus a person not eligible for a commercial vehicle licence may still be eligible for a private driver licence. In such cases, both books may need to be consulted.
- 2.5.3 Drivers of some classes of commercial vehicles may require certification or accreditation from a government agency in addition to a valid and appropriate driver licence, and this may require further medical examination in some States and Territories.

WHICH BOOK FOR WHICH LICENCE?

	ASSESSING FITNESS TO DRIVE (this book)	MEDICAL EXAMINATIONS OF COMMERCIAL VEHICLE DRIVERS
Does the patient drive a vehicle carrying goods or passengers for hire or reward?	No	Yes (e.g. drivers of taxis, hire cars, buses and coaches, trucks)
National Licence Classes	C (Car) R (Motorcycle) LR (Light Rigid) unless vehicle carries goods or passengers for hire or reward	MR (Medium Rigid) HR (Heavy Rigid) HC (Heavy Combination Vehicle) MC (Multi-Combination Vehicle) C and LR when driven for hire or reward (e.g. C licence to drive taxi)
Western Australia Licences	A, E, K, L, M, N	B, C, T, F
Vehicle Class	Vehicles up to 8 tonnes GVM (Gross Vehicle Mass)	Vehicles greater than 8 tonnes GVM (Gross Vehicle Mass)
Examples of Vehicles Driven	Cars, motorcycles, panel vans and 4 wheel drives; "people-movers" of less than 4.5 tonnes Gross Vehicle Mass, e.g. Tarago carrying no more than 12 people and light trucks. Does not include any category of bus	Trucks (all MR, HR, HC and MC licence types or licence classes), prime movers with a single semi-trailer, heavy combinations with more than one trailer, taxis, and coaches. All buses

Note: Drivers of dangerous goods vehicles, public passenger vehicles and some other vehicles are also bound by rules that do not relate to the type of driver licence held — refer to your local Driver licensing authority for more information.

3 ETHICS AND LEGAL ISSUES

3.1 DRIVER'S LIABILITY

- 3.1.1 National uniform law requires a patient to advise the local driver licensing authority of any permanent or long-term injury or illness that affects his or her safe driving ability. The new law imposes penalties for failure to report.
- 3.1.2 This requirement exists in all States and Territories, except Western Australia, at the time of publication.
- 3.1.3 As well as the criminal liability described above, a patient may be at risk of common law liability if he or she continues to drive knowing that he or she has a condition that may adversely affect driving. Drivers should be aware that there may be long-term financial and legal consequences where the driver has failed to report an impairment to the driver licensing authority.

3.2 THE CONFLICT BETWEEN CONFIDENTIALITY AND PUBLIC DUTY

- 3.2.1 A fundamental ethical issue for medical and other health professionals is the requirement to maintain confidentiality. Patient confidentiality is an acknowledgement of the patient's autonomy in maintaining control over information that relates to his or her medical condition. Health professionals are therefore not at liberty, in the majority of cases, to disclose to third parties, including driver licensing authorities, any patient details revealed within the professional relationship. Doctors and all health professionals do, however, have a duty of care to the public that, in most cases, is secondary to their primary duty of care to the patient. Where the public duty of care assumes more importance, it will include taking reasonable action to minimise the risk of harm resulting from the actions of a patient whose condition or behaviour is likely to be dangerous. A difficult ethical question arises if a health professional believes that there is an over-riding public interest in the disclosure of confidential information. The health professional must then decide if the public interest is sufficient to justify breaching patient confidentiality and jeopardising, perhaps irretrievably, the professional relationship held with the patient.
- 3.2.2 There is evidence from some places where reporting by health professionals to the driver licensing authority is required by law that the process becomes counter-productive. It is found that patients may withhold information from their health care professionals and, as a consequence, their condition is less effectively managed. As a result the health and safety of the patient and of other road users may be jeopardised.
- 3.2.3 It follows from the argument above that health professionals have an obligation towards public safety, but it is equally clear that action taken in the interests of public safety should be taken with the consent of the patient wherever possible.

- 3.2.4 A health professional might be liable in any jurisdiction if a court found that he or she had failed to take reasonable steps to prevent an impaired patient from driving in circumstances that would result in a substantial foreseeable increase in risk to members of the public or to the patient him or herself.
- 3.2.5 Common Law may offer some clarification of the requirements for a health professional before disclosing information to a responsible authority. In *W v. Egdell*, the English Court of Appeal referred to four factors that need to be considered in weighing up whether disclosure in the public interest should outweigh the duty of confidentiality. It must be shown that:
1. there is a real, immediate and serious risk for public safety;
 2. the risk will be substantially reduced by disclosure;
 3. the disclosure is no greater than is reasonably necessary to minimise the risk; and
 4. the public interest protected by the duty of confidentiality is outweighed by the public interest in minimising the risk.

3.3 INDEMNITY

- 3.3.1 **Under national uniform driver licensing law already in place in all States and Territories, any person, professional or otherwise, who reports a driver to a driver licensing authority, in good faith, is protected from civil and criminal liability. See the table on page 7 for more information on each State and Territory.**

3.4 DRIVING ASSESSORS

- 3.4.1 Throughout this publication, it is suggested that where doubt about driving ability exists, the patient be referred to a driving assessor. Where such a referral is impracticable a driving test might be considered as an alternative.
- 3.4.2 Referral to a driving assessor or for a driving test might particularly be considered in situations where there is concern about continued driving in the absence of unambiguous clinical findings.

In this publication, where the term '**driving assessor**' is used, it refers to a health professional who assesses the fitness to drive of those with a medical condition – or a team which may consist of medical and paramedical persons. In most States and Territories, occupational therapists are the only allied professionals who undertake specific education in driver assessments. Your local driver licensing authority may be able to assist you (see driver licensing authority contacts for health professional matters on page 74).

INDEMNITY PROVIDED IN AUSTRALIAN STATES AND TERRITORIES AND NEW ZEALAND

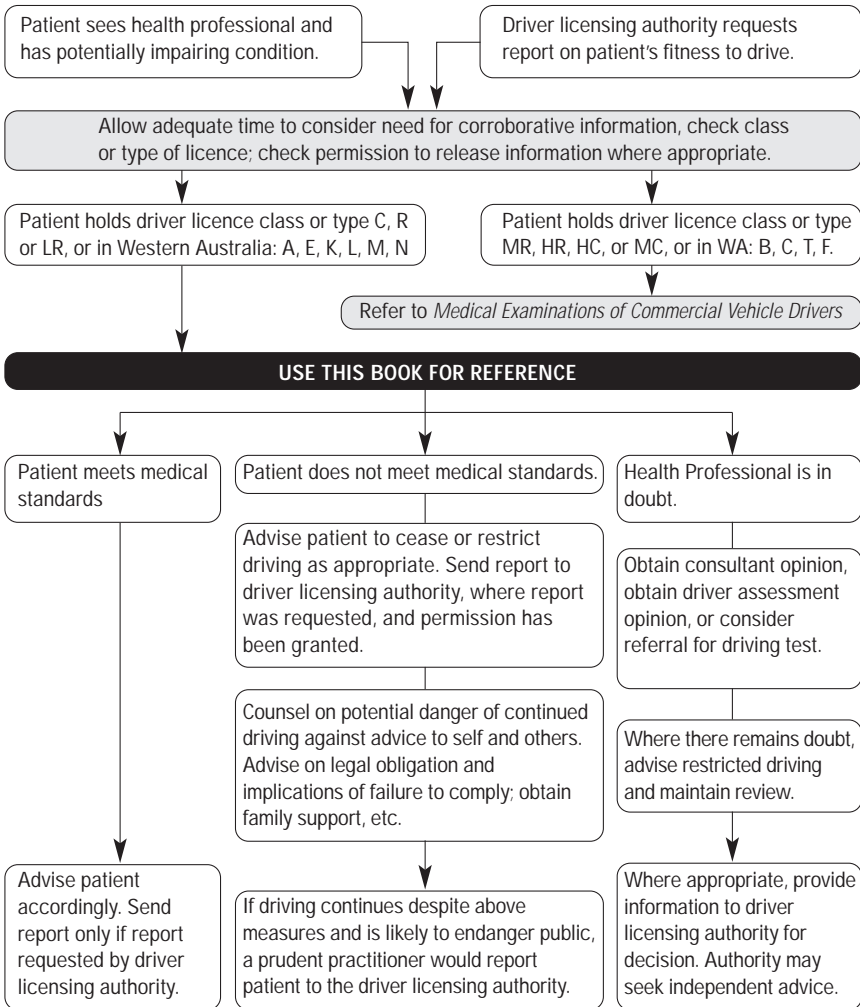
STATE OR TERRITORY	RELEVANT LEGISLATION	CLASSES OF PERSONS INDEMNIFIED AT DECEMBER 2000	ANTICIPATED CHANGES*
Australian Capital Territory	Road Safety (General) Act 1999	Any person	National Driver Licensing Law adopted
New South Wales	Road Transport (Driver Licensing) Act 1998; Road Transport (Driver Licensing) Regulation 1999; Road Transport (General) Act 1999	Any person	No change required. National Driver Licensing Law in place
Northern Territory	Motor Vehicles Act NT	Medical Practitioners, Optometrists, Occupational Therapists, Physiotherapists	National Driver Licensing Law adopted. No change anticipated
Queensland	Road Transport Reform Act 1999	Health care professionals	National Driver Licensing Law adopted
South Australia	Motor Vehicles Act SA	Doctors, Optometrists, Registered Physiotherapists	National Driver Licensing Law, expected June 2000, indemnifies any person*
Tasmania	Nil until approx. June, 2000	None	National Driver Licensing Law, expected June 2000, indemnifies any person
Victoria	Road Safety Act (1986) Victoria	Any person	No change required. National Driver Licensing Law in place
Western Australia	Road Traffic Act (1974) WA	A person who is asked by the driver licensing authority to provide a report	National Driver Licensing Law expected, date indeterminate,* indemnifies any person
New Zealand	Land Transport Act	Medical Practitioners, Optometrists	No plans to extend indemnity

* Where changes are anticipated, health professionals are advised to check with the driver licensing authority (see page 74) as the dates in the fourth column of this table are subject to change.

4 DIAGRAM OF THE MEDICAL ASSESSMENT PROCESS

The following schematic shows a summary of the medical assessment process with which health professionals should be familiar.

Note: Drivers of taxis, hire cars and chauffeurs of any vehicle require examination using the book *Medical Examinations of Commercial Vehicle Drivers* in order to drive those vehicles. Their ability to drive a private car (other than the vehicle they drive for a living) should be assessed using this book.



5

THE ASSESSMENT OF PATIENTS WHO ARE DRIVERS

5.1 REVIEW OF POTENTIAL RISK

- 5.1.1 The majority of adults drive; patients with a potentially disabling condition may drive, although sometimes in restricted circumstances, sometimes with conditions placed upon their licences (see below) or in modified vehicles.
- 5.1.2 **Health professionals should advise patients about the ways in which their condition may impair their ability to drive safely.** As part of this process, the patient becomes better informed about the nature of his or her condition, the extent to which he or she can maintain control over it, the importance of periodic medical review and the need for regular medication where appropriate.
- 5.1.3 At such a medical review, the health professional may form the view that the patient is fit to drive. On the other hand, the view may be formed that the patient is unlikely to be safe to hold an unconditional driver licence. The professional's role is then to obtain confirmatory evidence and, where appropriate, to advise the patient to cease driving (or to drive only in specific circumstances that are considered safe). Confirmatory evidence is often obtained from family members or friends and many difficult situations can be resolved with goodwill from all relevant parties, though not always immediately.
- 5.1.4 Where the health professional believes that continued driving would be likely to be dangerous, the patient should be reminded of the risk to him or herself, and to others, of continuing to drive. **The driver should also be reminded of the legal obligation to report the condition to the driver licensing authority** (currently in all States and Territories, except Western Australia).
- 5.1.5 **The guidelines in this book should be consulted when dealing with any such situation since they carry an authority that is not imposed on the driver by the health professional but by the national consensus of the driver licensing authorities.**
- 5.1.6 If such an impaired driver continues to drive against medical advice, the ethical and legal dilemma outlined on page 5 et seq. is faced by the health professional. Without the patient's consent, the professional may be reluctant to disclose information to the driver licensing authority unless certain of indemnity from litigation for breach of confidentiality (see page 6). Whether indemnified or not, a judgement needs to be made, weighing up the obligation to the patient and the protection of the public.
- 5.1.7 When the health professional is aware that the driving is continuing and that it is likely to endanger the public, despite counselling and despite the driver's own obligation to report, reasonable measures to minimise that danger will include

notification of the driver licensing authority (see Ethics and Legal Issues, page 5 and diagram of the medical assessment process, page 8).

- 5.1.8 It is emphasised that in difficult situations, for example where doubt exists about a patient's fitness to drive, the review by a consultant experienced in the management of the particular condition is essential. It may also be appropriate for a second opinion to be sought, one reason being that a recalcitrant patient may well go to another professional in any case and may, deliberately or subconsciously withhold important information in order to retain the driver licence.

5.2 PROGRESSIVE DISORDERS

- 5.2.1 Often diagnoses of progressive disorders are made well before there is any need to question whether the patient remains safe to drive.
- 5.2.2 In a mobile society, people frequently make choices about employment, place of residence and recreational and social activities based on the assumption of continued access to a car. Changing jobs, home and social contacts takes a great deal of time and places substantial emotional demands on patients and their families.
- 5.2.3 **It is therefore strongly recommended that the patient be counselled appropriately where a progressive condition is diagnosed that may result in future restrictions on driving. It is important to give the patient as much lead-time as possible to make the life-style changes that may later be required.**

5.3 RESPONDING TO REQUEST FOR REPORT FROM THE DRIVER LICENSING AUTHORITY

- 5.3.1 Health professionals may be required to provide a formal report to a driver licensing authority about a patient's fitness to drive. For the most part this is ethically easier for the professional, since consent for the release of clinical information is usually a part of the process. It is wise, nonetheless, to ensure that appropriate consent has been obtained.
- 5.3.2 These guidelines are specifically designed for the purpose of preparing a report to the driver licensing authority. The same process of assessment described above will be necessary. There will be occasions, however, when the patient's particular condition or circumstances are not covered precisely by the guidelines. A consultant opinion may be desirable. In cases where the consultant may still be uncertain about the relative merits of a particular case, driver assessment is one option that may be appropriate but this may not provide a full answer in all cases. It is proper for a professional in such circumstances to prepare a report for the driver licensing authority stating the facts and his or her opinions clearly. The driver licensing authority will make the final judgement, and is required to do so by law. Driver licensing authorities may refer such cases to specialist medical panels or consultants to assist in such matters.

5.4 CRASHES

- 5.4.1 A particular situation requiring the preparation of a report is one in which a crash has occurred and police or the driver licensing authority believes a medical condition may be relevant. In such cases careful documentation is required as the driver licensing authorities have an obligation to the community and are less likely to allow driving unless both medical practitioner and the authority are confident that it is responsible to do so.
- 5.4.2 In all cases, but especially cases of this variety, the professional will be aware of the necessity of expressing an opinion based on all the information available. In some cases, there may be some information not made available to the professional, so caution is counselled in making conclusions and recommendations. Normally information about the circumstances of the crash will be provided to the professional and, in the absence of such information, the report should be appropriately qualified.

5.5 PATIENT–PROFESSIONAL CONFLICT

- 5.5.1 Because most adults consider a driver licence critical to continued independence, employment and recreation, the risk of its being withdrawn can evoke strong emotions. It is not rare for patients to be affronted by a challenge to their driver licence and to direct their hostility at their health professionals. Health professionals may be subject to abuse and to threats of violence. It is clear, in such circumstances, that the professional is quite unable to assist the patient and has little, if any, capacity to influence the broader issue of public safety. In this situation the health professional can be under no obligation to make a decision on fitness to drive since he or she will be constrained by any future relationship with the patient, including the issue of intimidation. In such circumstances the health professional might suggest the matter be referred to the driver licensing authority without recommendation, and that the driver licensing authority make a ruling. These guidelines serve as a basis for the decisions made by driver licensing authorities. The authorities themselves will take all reasonable steps to obtain the information required to make a valid and defensible decision. Driver licensing authorities recognise that it is their role to enforce the laws on driver licensing and road safety and will not place pressure on health professionals that might needlessly expose them to risk.

5.6 RESTRICTED OR CONDITIONAL LICENCES

- 5.6.1 Health professionals are encouraged to recommend restrictions or conditions on licences where practical, rather than recommending cancellation or suspension of driver licences. Conditions or restrictions should be used where it can reasonably be expected that the restriction or condition imposed would sufficiently reduce the risk of a crash caused by a medical condition or the use of medication.
- 5.6.2 A list of standard conditions and restrictions are on page 72. If medical practitioners feel they need to recommend conditions not on the list, they should specify in their report why the non-standard condition is preferred. **The driver licensing authority will make the final determination on what condition is endorsed on the licence.**
- 5.6.3 Where licence suspension or the imposition of conditions or restrictions is recommended, reference may be made to Disabled Parking / Taxi Service on page 65 for assistance in counselling the patient on alternative means of transport.

6 APPEALS

Each State and Territory has an appeal system for situations where patients feel the driver licensing authority has treated them unjustly. The health professional may inform patients of this and direct them to their local driver licensing authority for details.

7 UPDATES AND CONTRIBUTIONS

It is proposed to periodically update these standards and procedures. If you have any comment or suggestions about improving this document, please write to:

The Executive Director
Austroads
PO Box K659
HAYMARKET NSW 2000



PART B: MEDICAL STANDARDS

8 ALCOHOL ABUSE

8.1 RELEVANCE TO DRIVING TASK

- 8.1.1 There is an abundance of research that shows that with increased levels of intoxication, there is a disproportionate increase in the risk of a motor vehicle crash. With a Blood Alcohol Concentration (BAC) of 0.05, a driver is twice as likely to be involved in a fatal crash as one with no alcohol. At 0.10 a driver has seven times the relative risk and at 0.15, a 25 times greater risk of a fatal crash.
- 8.1.2 Problem, or addicted, drinkers are of particular concern for road safety. A recent study demonstrated that such drinkers are involved in one third to one half of all alcohol-related crashes, although they only represent around 10% of the adult population.
- 8.1.3 In countries where there are laws less restrictive than in Australia, it has been shown that less experienced drivers have alcohol-related crashes at lower BACs than more experienced drivers. This supports the differing BACs mandated for in our graduated licensing system. It also supports paying particular attention to inexperienced and young drivers with regard to drinking behaviour and driving.
- 8.1.4 A further negative effect of alcohol on driving relates to the long-term alcohol abuser. Organ damage resulting from chronic alcohol intake is well known to all medical practitioners, and it is obvious that the many manifestations of organic brain damage associated with longer-term alcohol abuse are incompatible with safe driving.
- 8.1.5 The use of alcohol in conjunction with some illicit, over-the-counter and prescribed drugs creates an increased risk of crashes whilst driving.

8.2 DRINKING BEHAVIOUR

8.2.1 DRINKING AND DRIVING

- 8.2.1.1 In order to comply with legal BAC levels of a maximum of 0.05g/100mL, it is recommended (e.g. by the Federal Office of Road Safety, now known as the Australian Transport Safety Bureau) that women drink no more than one standard drink in the first hour, then only one drink per hour thereafter (standard drinks are defined below).
- 8.2.1.2 To stay under 0.05g/100mL men are advised to drink no more than two standard drinks in the first hour, then no more than one standard drink per hour thereafter.
- 8.2.1.3 Obviously, drivers who must comply with zero blood alcohol rules cannot drink at all.

8.2.1.4 These drinking guidelines are designed to be on the safe side for most people. However, some people will need to be even more careful (e.g. a person with a small build or one who is ill).

STANDARD DRINKS DEFINED: ONE STANDARD DRINK				
BEVERAGE	STRENGTH	VOLUME	ALCOHOL CONTENT	GLASSES PER Standard Drink
Beer – Superlight	0.9%	5 x 285mL	10 grams (2 grams/glass)	5
Beer – Light	2% – 3%	2 x 285mL	10 grams (5 grams/glass)	2
Beer – Regular	4% – 5%	285mL	10 grams	1
Table Wine	12%	100mL	10 grams	1
Fortified Wine	18%	60mL	10 grams	1
Spirits	37%	30mL	10 grams	1

8.2.1.5 **Note that for some categories of licence, the different States and Territories have more stringent BAC limits.** On page 66 of this document, there is a summary of alcohol limits according to vehicle type and State or Territory to which the practitioner can refer when advising a patient on drinking and driving.

8.3 BINGE DRINKING

8.3.1 Binge drinking has been defined as the intermittent consumption of alcohol to intoxication in short periods of time. During ‘binges’ persons may exhibit behaviour like problem drinkers and should be considered hazardous with regard to driving. A practitioner who is aware that their patient does ‘binge drink’ should advise of negative consequences including State or Territory BAC laws (see page 66) and possible accident involvement.

8.4 HAZARDOUS DRINKING

8.4.1 There is some argument as to what constitutes a level of drinking that is hazardous to a person’s health. The medical practitioner may need to advise a patient as to what may be hazardous drinking, and what this means in terms of driving demands in the short or long term. Alcohol-free days need to be taken into account when determining whether a patient is a problem drinker.

- 8.4.2 Further information may be obtained from the document *The Handbook for Medical Practitioners and other Health Care Workers on Alcohol and other Drug Problems*, Commonwealth Department of Human Services and Health, 1994.

8.5 HABITUAL ALCOHOLIC INTOXICATION

- 8.5.1 Habitual alcoholic intoxication is now recognised as a serious medical disability. Patients who are known by their medical practitioner to be frequently intoxicated to the extent that their ability to drive a motor vehicle may be impaired, should always have this disability recorded in medical records and in medical reports to the driver licensing authority.
- 8.5.2 Some medical practitioners may question the need to report habitual alcoholic intoxication as a medical disability. Patients with habitual alcohol intoxication are significantly over-represented in the total number of crashes in both 'driving under the influence' and in alcohol-related crashes.
- 8.5.3 The practitioner needs to weigh the benefits of patient mobility with the substantially increased risk posed to other road users (see Ethics and Legal Issues, page 5).

8.6 EFFECT OF HABITUAL INTOXICATION ON OTHER DISEASES

- 8.6.1 Persons who are frequently intoxicated and who also suffer from certain other medical conditions are all too often unable to give their other medical problems the careful attention required.

8.7 ALCOHOL AND EPILEPSY

- 8.7.1 Many patients with epilepsy are quite likely to have a seizure if they miss their prescribed medication even for a day or two, particularly when this omission is combined with inadequate rest, emotional turmoil, irregular meals and alcohol. Patients under treatment for any kind of epilepsy are not fit to drive any class of motor vehicle if they are frequently intoxicated.

8.8 ALCOHOL AND DIABETES

- 8.8.1 Patients with diabetes and on insulin have a special problem when they are frequently intoxicated. Not only may they forget to inject their insulin at the proper time and in the proper quantity, but also their food intake can get out of balance with the insulin dosage. This may result in a hypoglycaemic reaction or the slow onset of diabetic coma. Such persons should not drive at all until they no longer drink to excess.

8.9 ALCOHOL AND MEDICATION

- 8.9.1 Some medications are incompatible with ingestion of alcohol (e.g. some sedatives). Where alcohol is thought to be a problem, medical practitioners should consider alternative medication where available or alternatively take appropriate steps to restrict driving whilst on medication e.g. reporting the problem to the driver licensing authority.
- 8.9.2 Since the use of alcohol in association with a number of 'recreational' drugs is known to potentiate their effect, driving may be dangerous in these circumstances.

8.10 MEDICAL STANDARDS

Specialist drug and alcohol assessment centres (clinics) are found in most locations, and referrals to such centres are recommended.

MEDICAL STANDARDS – ALCOHOL ABUSE	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
8a Alcohol Related Brain Impairment	Should not drive until an appropriate assessment has been performed and cleared by health professional.
8b Binge Drinking	Should not drive whilst intoxicated. Patient should be counselled accordingly.
8c Chronic Excessive Drinking	Should not drive whilst intoxicated. Should not drive at all if clear evidence of abuse or dependence.
8d Other Known Drink Driving Behaviour	Should not drive whilst intoxicated. Advise of State or Territory BAC limits (see page 66) and possibility of serious accident. Could be advised not to drive until cleared by specialist drug and alcohol unit.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

9 ANAESTHESIA

9.1 RELEVANCE TO DRIVING TASK

9.1.1 Post anaesthesia, both physical and mental capacity may be impaired for some time thus affecting an individual's ability to drive. This is applicable to general and local anaesthesia. The degree of effect of local anaesthesia on driving ability is dependent on dosage and region of administration.

9.2 MEDICAL STANDARDS

9.2.1 In cases of post-operative recovery following major surgery and administration of local anaesthetics, it is the responsibility of the surgeon and practitioner to advise patients against driving until physical and mental recovery is complete and to take reasonable steps to ensure that patients do not drive.

MEDICAL STANDARDS – ANAESTHESIA	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
9a General Anaesthetic	Should not drive for 24 hours after a general anaesthetic.
9b Local Anaesthetic	Should not drive whilst anaesthetised region impairs motor, perceptual or cognitive functioning.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

10 CANCER

10.1 RELEVANCE TO DRIVING TASK

- 10.1.1 Cancer could be considered one of the least likely conditions to contribute to road fatality or place the patient or other drivers and pedestrians at risk. However, cancers requiring intervention with opioids, chemotherapy or radiotherapy may prove deleterious to driving ability if such treatment presents side effects which interfere with an individual's functional capacity. The site and degree of advancement of the cancer is a prime consideration as to whether a patient remains fit to drive.
- 10.1.2 Patients with cancer are often prescribed opioids. If such patients are otherwise fit to drive and on a stable dose of regularly administered opioids, then, in normal circumstances, they should be able to drive.

10.2 MEDICAL STANDARDS

- 10.2.1 Assessed on an individual basis. This will involve assessing the patient's functional capacity, site of the tumour, and what medication the patient is taking. If the tumour involves the brain the patient should not drive subject to a medical assessment.

MEDICAL STANDARDS – CANCER	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
10a Chemotherapy	Judgement about effects of chemotherapy on driving should be made on an individual basis.
10b Palliative Care	These patients need to be assessed regularly and frequently regarding medication, driving ability and overall cognitive and physical functioning.
10c Radiotherapy	Judgement about effects of radiotherapy on driving should be made on an individual basis.
10d Intracranial Tumours	Should not drive for a minimum of 3 months. May drive thereafter if tumour treated successfully and likely to remain stable and physical and mental abilities are judged by treating specialist to be adequate for safe driving. Regular review is appropriate for many patients. Occupational therapist assessment may be helpful.
10e Tumours Affecting Liver	Should not drive if end-stage liver failure with evidence of cognitive impairment or other symptoms incompatible with ability to control a vehicle.
10f Tumours Affecting Bones	Able to drive if no restrictions to movement and pain does not interfere with concentration.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

11 CARDIOVASCULAR DISEASES

11.1 RELEVANCE TO DRIVING TASK

- 11.1.1 Heart attacks causing collapse or sudden death in the driver's seat have been the subject of a number of reports. The evidence suggests that people who develop severe and even fatal coronary attacks while driving may have sufficient warning to slow down or stop before losing consciousness, since less than half result in property damage and injury. However, sometimes no warning occurs or a warning sign is misinterpreted or ignored, and this may result in severe injury or death to other road users.
- 11.1.2 Collapse from ischaemic heart disease (non-fatal and fatal) appears to account for around 15% of sudden illness crashes, which in turn account for about 1 in 1,000 reportable crashes. Thus ischaemic heart disease poses a relatively small but increased risk.

11.2 GENERAL CONSIDERATIONS

- 11.2.1 Although the medical and surgical treatment of ischaemic heart disease may lead to alleviation of symptoms and improve life expectancy, coronary arteriosclerosis tends to be a progressive process and the risk of heart attack, collapse and sudden loss of consciousness is greater than in healthy populations. When assessing a patient with cardiovascular disease, the health professional should consider any symptoms of sufficient severity to be a risk whilst driving.
- 11.2.2 Patient examination will find some people with established heart disease. These people clearly have increased risk over the general population. A stress ECG should be performed if clinically indicated.
- 11.2.3 Where chest pains of uncertain origin are reported, every attempt should be made to reach a positive diagnosis and the patient counselled in the meantime to restrict his or her driving. It is necessary to place the person with established heart disease in the broad risk categories:
- Some increased risk over the general population
 - No increased risk
- 11.2.4 If there is any doubt as to driving risk, a cardiologist review is desirable.

11.3 MEDICAL STANDARDS

- 11.3.1 Guidelines for chronic disorders are made with the presumption that the disorder is stable and well controlled. If this is not the case, a specialist consultation should be conducted. A conditional licence may be recommended after initial assessment by an appropriate specialist. The condition should be annually reviewed by the patient's medical practitioner.

MEDICAL STANDARDS – CARDIOVASCULAR DISEASES	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
11a Acute Myocardial Infarct	Should not drive for 2 weeks post uncomplicated AMI. Fitness thereafter should be assessed in terms of general convalescence. More than 1 AMI needs cardiologist appraisal. Regular review required.
11b Aneurysms Abdominal and Thoracic	Should not drive for 4 weeks post repair. Untreated aneurysms over 5cm need specialist examination.
11c Angina	May drive if angina well controlled. Regular review required.
11d Angioplasty	Should not drive for 2 days post angioplasty if no AMI immediately before or after angioplasty, no angina on mild exertion and no electrocardiographic changes, arrhythmias, hypertension or other conditions rendering person unfit to drive.
11e Atrial Fibrillation	Should not drive after acute episode, which causes dizziness or syncope, until condition is stabilised.
11f Cardiac Arrest	Should not drive until cleared by appropriate specialist or GP. Regular review may be indicated.
11g Cardiac Defibrillator	Should not drive for 2 weeks after insertion of an automatic implantable cardiac defibrillator. Driving may recommence if no other condition renders driver unfit to drive. Regular review required.
11h Cardiac Pacemaker	Should not drive for 2 weeks after insertion of a pacemaker. Driving may recommence if no other condition renders driver unfit to drive. Regular review required.
11i Cardiac Surgery	Should not drive for 4 weeks post surgery and until cleared by primary care physician.
11j Cardiomyopathy	May drive if asymptomatic on moderate exertion with no arrhythmias or other conditions rendering person unfit to drive. Cardiologist assessment recommended for more complex presentations. Regular review required.
11k Congenital Disorders	May drive if asymptomatic on moderate exertion with no arrhythmias or other conditions rendering person unfit to drive. Cardiologist assessment recommended for more complex presentations. Regular review may be indicated.
11l Deep Vein Thrombosis	Should not drive for 2 weeks post event, subject to clinical assessment.

Continued next page

MEDICAL STANDARDS – CARDIOVASCULAR DISEASES (cont'd)

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
11m ECG Changes: <i>Strain Patterns, Bundle Branch Blocks, etc.</i>	May drive subject to clinical assessment, i.e. patient is asymptomatic.
11n Heart Block	If symptomatic should not drive for 2 weeks following commencement of appropriate, successful treatment. Asymptomatic cases do not present a barrier to driving. Those with third degree heart block should not drive until pacemaker is inserted – specialist opinion and annual review required.
11o Heart Failure	May drive if asymptomatic on moderate exertion.
11p Heart Transplant	May drive subject to recommendation of appropriate specialist. Regular review required.
11q Hypertension	May drive if well controlled and no significant side effects from the condition or medication
11r Hypotension	See Syncope, below.
11s Paroxysmal Arrhythmias <i>(with near or definite collapse)</i>	May drive if no haemodynamic disturbance. If near or definite collapse, must be reviewed by specialist before driving. Regular review may be indicated.
11t Pulmonary Embolism	Should not drive for 6 weeks post event. For recurrent embolisms, appropriate specialist assessment is required.
11u Strokes	See Neurological Disorders, page 42.
11v Syncope	Should not drive for 4 weeks after an episode of unknown cause. If recurrent episodes, refer to relevant specialist for assessment.
11w Valvular Heart Disease	Should not drive if the patient has symptoms on moderate exertion and has ejection fraction greater than 20%. Regular review required.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

12 DIABETES

12.1 RELEVANCE TO DRIVING TASK

12.1.1 Diabetes may affect a person's ability to drive, due to loss of consciousness in a hypoglycaemic episode or from end organ effects on relevant functions, including vision, vasculature of limbs and extremities, particularly the feet. The main hazard in people with insulin-dependent diabetes is the unexpected occurrence of hypoglycaemia.

12.2 HYPOGLYCAEMIA

12.2.1 Hypoglycaemia may be caused by many factors including alteration to medication, unexpected exertion or irregular meals. Impairment of consciousness and judgement may develop rapidly and result in the loss of control of a vehicle.

12.2.2 When considering hypoglycaemia for licensing purposes, the health professional should not simply ask patients about mild hypoglycaemic symptoms, which may be frequent and of little importance. The health professional should also consider the possibility of major hypoglycaemic episodes, which may impair consciousness, awareness, motor skills or result in abnormal behaviour.

12.3 MEDICAL STANDARDS

12.3.1 People with diabetes controlled by diet alone are eligible for any licence category.

12.3.2 **If there is poor management of a diabetic condition, or poor compliance by a patient to their specified treatment, then the patient with diabetes should be advised not to drive.**

12.3.3 Periods during which driving is not recommended may be varied by the primary care physician. For diabetes-related end organ damage, see the appropriate chapter.

MEDICAL STANDARDS – DIABETES	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
12a Diabetic Retinopathy	May drive if vision meets vision criteria (see page 71). Regular review by an eye practitioner is required.
12b Hyperglycaemia and Ketoacidosis	Should not drive after admission to hospital for stabilisation of diabetes or hyperglycaemia until cleared by primary care physician.
12c Insulin-Requiring Diabetes Mellitus	May drive if meets all other criteria in this book. Two-yearly review required. Physician may require shorter review period. A patient newly started on insulin therapy should be advised to notify the driver licensing authority of the condition and treatment.
12d Major Hypoglycaemic Episodes	Should not drive after major hypoglycaemic episode or hypoglycaemic episode whilst driving until cleared by primary care physician or specialist.
12e Non-Insulin-Requiring Diabetes Mellitus	May drive if meets all other criteria in this book. Five-yearly review required. Physician may require shorter review period.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

13 DRUGS – ILLICIT**13.1 RELEVANCE TO DRIVING TASK**

- 13.1.1 Many of the physiological effects of illicit drugs are similar to both alcohol and prescription drugs; their usage is likely to cause a significant safety hazard. This is particularly so where illicit drugs are used in combination with prescribed drugs or alcohol.
- 13.1.2 Stimulant drugs such as amphetamines and cocaine, which produce a heightened sense of well being, uninhibited behaviour, increased aggression* and risk taking behaviours obviously have a potential for causing road crashes. The use of illicit (and licit) stimulants to counteract the effects of fatigue carries with it the risk of 'fatigue rebound'. This is observed when the effect of the drug wears off and is associated with profound sleepiness, which can result in a driver suddenly falling asleep at the wheel, with obvious consequent risk of accident. [* See Aggressive Behaviour, Page 37].
- 13.1.3 Though there is little information about driving and short or long-term effects of drugs such as LSD, heroin and so-called 'designer drugs' (e.g. Ecstasy, Angel Dust), their use is clearly not compatible with the complex driving task.
- 13.1.4 Cannabis can impair psychomotor functions thought to be related to driving skills. However, there is still debate about the duration of impairment outside laboratory experiments.

13.2 GENERAL CONSIDERATIONS

- 13.2.1 For perhaps more than any other category of medical condition, careful individual assessments need to be made of drivers using psychoactive drugs. Additional advice from those involved in specialised treatment centres will frequently be necessary and ongoing assessment is likely to be crucial, including blood tests.
- 13.2.2 Users of illicit drugs are unlikely to volunteer information about their condition. This creates a problem in identifying all cases of illicit drug use.
- 13.2.3 The habitual use of illicit drugs is widely accepted as being incompatible with safe driving. Occasional use requires very careful assessment. Virtually all illicit drugs are psychoactive and likely to have detrimental effects on driving skills.
- 13.2.4 Apart from advising the known occasional user against driving, the health professional should take more active steps to prevent driving, especially where a heavy vehicle driver licence is involved.

13.2.5 Where continual drug use is known to exist, it may be prudent to advise the driver licensing authority.

MEDICAL STANDARDS – ILLICIT DRUGS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
13a Narcotic Analgesic Abuse	Should not drive if clear evidence of abuse or dependence. Referral to specialist drug and alcohol unit might be considered.
13b Methadone (Illicit Use)	Should not drive if clear evidence of abuse. (But see Medication/OTC Drugs, page 33 for those on prescribed methadone and who are well controlled.)
13c Other Illicit Drug Use	Should not drive if clear evidence of abuse or dependence. Referral to specialist drug and alcohol unit might be considered.
<i>Note: The combination of alcohol with illicit drugs is especially dangerous.</i>	

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

14 EPILEPSY**14.1 RELEVANCE TO DRIVING TASK**

- 14.1.1 Sudden loss of consciousness that may be experienced by an individual suffering from epilepsy clearly impairs the ability to control a vehicle.
- 14.1.2 Estimates of the relative casualty crash risk of drivers with epilepsy compared with other drivers has varied enormously from 1.0 to 1.8. Between 10% and 15% of crashes of drivers with epilepsy are felt to be seizure-related. Reported estimates of the risk of epilepsy-related crashes vary between 0.03% and 0.3%.
- 14.1.3 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 implicated. Some patients may have seizures that are 'safe' from the point of view of driving. Examples include seizures that occur 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). There are also examples where seizures only occur at a particular time of day, especially in the first hour after awakening. A restricted licence, limiting driving to later in the day, 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.

14.2 GENERAL CONSIDERATIONS

- 14.2.1 It is extremely important that the patient's specific epilepsy syndrome and seizure content be identified so that an adequate evaluation of the person's driving safety can be assessed and the appropriate therapy instituted.
- 14.2.2 Any person experiencing a seizure or recurrent seizures should be referred to an appropriate consultant for detailed evaluation, so that the risk of further seizures and the need for drug treatment can be determined.
- 14.2.3 In general, responsible individuals with well-managed epilepsy 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 report.

- 14.2.4 Where non-compliance with medication is suspected, the driver licensing authority may decide to issue a driver licence conditional upon periodic medical review, including drug-level monitoring where appropriate.
- 14.2.5 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 prescribed
 - The patient should ensure adequate sleep 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
- 14.2.6 Periodic review is necessary to ensure that patients continue to fulfil the required criteria as shown in the following table. Annual review is recommended for all drivers with a history of seizures.

14.3 MEDICAL STANDARDS

- 14.3.1 The following table provides a guide to the recommended seizure-free period before resumption of driving in different circumstances relating to the occurrence of seizures. In considering a stated range of the recommended seizure-free period, driver licensing authorities 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.
- 14.3.2 Restricted or conditional licences may be recommended in particular circumstances (see pages 72). Those who have been seizure free for the required period but are not taking anti-epileptic medication will be considered in the same way.
- 14.3.3 Where epilepsy is associated with other impairments or conditions, the relevant sections covering those disorders should also be consulted.

MEDICAL STANDARDS – EPILEPSY (recommended seizure-free periods)	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
14a Chronic Epilepsy <i>(history of previously uncontrolled seizures)</i>	Generally 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).
14b Isolated Seizure	3–6 months. Consultant opinion recommended.
14c Recently Diagnosed Epilepsy opinion recommended.	3–6 months from start of therapy. Consultant
14d Recurrent Seizure in a Person Previously Seizure Free due to identifiable Provocation	3 months from last seizure, if fulfilling all other criteria as set out in these guidelines. Provocation may include illness, drug interaction, sleep deprivation
14e Recurrent Seizure on Withdrawal of Medication on Medical Advice	1 month after resuming previously effective medication or 2 years if refusing to resume medication.
14f Seizure Causing Accident	Minimum of 1 year. Consultant opinion essential.
14g Seizures Only in Sleep	12 months from the last seizure whilst awake.
14h Surgery for Epilepsy	12 months.
14i Withdrawal of Anti-Epileptic Drug Therapy where there is significant risk of recurrent seizure.	The full period of withdrawal and at least 3 months thereafter. Consultant opinion is recommended to determine if there is a significant level of risk or otherwise.

15 GASTROINTESTINAL DISORDERS

15.1 RELEVANCE TO DRIVING TASK

15.1.1 There is little data to support the assumption of a higher crash rate as a result of gastrointestinal disorders. Patients with hepatic failure do not normally drive and would be considered unsafe.

15.2 MEDICAL STANDARDS

15.2.1 As a general rule, gastrointestinal disorders should not interfere with a patient's ability to drive. Acute conditions will be obvious for short terms only. It should be noted that seat belts are required to be worn after ileostomies and colostomies (see page 69).

MEDICAL STANDARDS – GASTROINTESTINAL DISORDERS

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
15a Hepatic Failure	Should not drive if end-stage liver failure, with evidence of cognitive impairment or other condition that may affect driving.
15b Liver Transplants	May drive subject to recommendation of appropriate specialist. Regular review required.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

16 HEARING

16.1 RELEVANCE TO DRIVING TASK

- 16.1.1 Mild to moderate hearing loss does not appear to affect the ability to drive safely and studies have shown that some drivers with hearing loss have a better than average driving record.
- 16.1.2 It may be that a loss of hearing is well compensated for since most people who are hard of hearing are aware of their disability and tend to be more cautious.

16.2 MEDICAL STANDARDS

- 16.2.1 Only drivers of commercial vehicles are required to have a reasonable level of hearing to be aware of changes in engine noise or road noise which may signal developing problems, and to be aware of horns, rail crossings, emergency signals and sirens without compromise of safety. Please refer to *Medical Examinations of Commercial Vehicle Drivers*.

MEDICAL STANDARDS – HEARING

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
16a Hearing Loss	Hearing loss is no impediment to driving a private car. Patients should be advised that substantial losses may preclude obtaining a commercial driver licence.

17 HIV / AIDS

17.1 RELEVANCE TO DRIVING TASK

17.1.1 There is no evidence relating the incidence of vehicle crashes to persons with HIV. There is also no evidence linking vehicle crash incidence to AIDS. However, the side effects of some medication and deterioration of the patient's health with advancement of the disease may adversely affect driving ability.

17.2 MEDICAL STANDARDS

17.2.1 An individual who is HIV positive but has not experienced symptoms associated with immune system decline such as common opportunistic infections, may be considered fit to drive. If the virus progresses to the stage that Acquired Immune Deficiency Syndrome may be diagnosed (the Australian definition of AIDS is having had a serious life-threatening illness as a result of HIV), the patient must be carefully and routinely evaluated regarding their continued capacity to control a vehicle. At this stage illness may become chronic and the nature of progression cannot be estimated.

17.2.2 Special attention should be given to side effects of any medication, which may impair driving ability. This should include medications for anxiety or sleeplessness, which are often prescribed for such patients.

MEDICAL STANDARDS – HIV/AIDS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
17a AIDS	Specialist opinion required. Conditional licence may be considered. An annual review (at least) is required.
17b HIV	May drive if condition stable.
17c HIV Without Symptoms	Fit to drive.
17d Neural HIV	Should not drive. Licence may be issued on medical advice that condition is stable. An annual review (at least) is required.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

18 MEDICATION / OTC DRUGS**18.1 RELEVANCE TO DRIVING TASK**

- 18.1.1 There is some controversy surrounding the effects of prescription drugs, medication or over-the-counter (OTC) drugs on the driving task and crash involvement.
- 18.1.2 A summary of studies in 1992 showed that the interaction between personality, mental state, performance situation and psychoactive drugs is complex. The more behaviourally toxic compounds may increase the relative risk of an industrial accident or road crash.
- 18.1.3 Studies conducted in 1983 and 1990 suggest that psychoactive drugs are contributory factors to accidents in general (not just traffic accidents). A 1990 study in the UK demonstrated that patients taking benzodiazepine or other tranquillisers are five times more likely to experience a serious motor vehicle crash than non-drug users.
- 18.1.4 Medical evidence and crash statistics show that the interaction between some drugs (e.g. sedatives and psychoactive drugs) and alcohol can be extremely dangerous.

18.2 GENERAL CONSIDERATIONS

- 18.2.1 In all cases when health professionals are prescribing medications, they should consider any possible effects on driving skills and inform the patient. **Failure to do so may have medico-legal consequences for the practitioner in the event of a crash involving the patient.**
- 18.2.2 Medications listed in the next table are some of those that can affect a driver's ability to drive by causing drowsiness or affecting coordination or alertness. When such medicine is considered necessary, adequate counselling should be given at the time of prescription.

MEDICATION WHICH MAY AFFECT DRIVING ABILITY

DRUG GROUP	EXAMPLES	ADVICE
Analgesics	Codeine and other opioids (<i>but see methadone below</i>) Narcotics, Propoxyphene	Patients should be cautioned about driving if using these medications due to sedative side effects.
Antiarrhythmics	Flecainide Mexiletine	Patients should be cautioned about driving when being stabilised on such drugs.
Anticonvulsants	Carbamazepine Clonazepam Phenytoin Sodium Sodium Valproate	Once stabilised and cleared to drive patients should be warned about dosage changes and using other medication.
Antidepressants	Amitriptyline Clomipramine Imipramine Trimipramine Mianserin Doxepin	The newer antidepressants should be used in preference if driving is an important issue. All patients should be cautioned when commencing these medications.
Antiemetics	Metoclopramide	Warn patient that this may affect ability to drive.
Antihistamines	Older antihistamines are well known to cause drowsiness and impair driving ability.	The non sedating anti-histamines should be used in preference. Patients should be cautioned when starting these drugs.
Anti-hypertensives	Beta blockers Nifedipine Prazosin Clonidine Methyldopa	All drivers should be cautioned when starting new medication.
Anti-inflammatories	Allopurinol Indomethacin Ketoprofen Tiaprofenic Acid	Medication should be checked carefully for possible side effects. For joint problems see also Musculo-Skeletal Disorders, page 39.
Antimicrobials	Griseofulvin Norfloxacin Metronidazole	Warn patient that this may affect ability to drive, especially in combination with alcohol.

Continued next page

MEDICATION WHICH MAY AFFECT DRIVING ABILITY (cont'd)		
DRUG GROUP	EXAMPLES	ADVICE
Anti-parkinsonian	Amantadine Benzhexol Benztropine Biperiden L-dopa	All patients starting on new medication should be warned about the side effects. Ensure frank discussion about driving ability.
Antipsychotics	Chlorpromazine Fluphenazine Thioridazine Trifluoperazine	All patients using these medications should be warned against driving whilst being stabilised.
Methadone	Methadone	May drive if patient under regular review and stable. Warn patient of dosage changes.
Sedatives	Diazepam Flunitrazepam Oxazepam Lorazepam Nitrazepam Temazepam Amylobarbitone Chloral Hydrate	Chronic long-term use of these drugs does impair ability to drive and all patients should be cautioned. Should not drive whilst being stabilised.
Stimulants	Dexamphetamine Methylphenidate Phentermine Ephedrine Diethylpropion	May induce increased aggressiveness (see Aggressive Behaviour, page 37) and risk taking, particularly at high doses. Fatigue and depression usually follow the central stimulation. May affect a patient's reactions and adversely influence the ability to drive and use machines. Patients should be cautioned accordingly.
Topical Eye Medication	Timolol Pilocarpine Hydrochloride, etc	Eye medication may affect vision or have systemic effects and patients should be counselled accordingly.

19 MENTAL HEALTH

19.1 RELEVANCE TO DRIVING TASK

19.1.1 There is scant empirical evidence in relation to the precise effect of alterations in mental state on driving ability. However, it has been reported that more than 50% of fatally injured drivers had experienced interpersonal or vocational stresses during the 12 months preceding their crashes, compared with 18% of a control group. In a study of schizophrenic and manic depressive individuals (bipolar disorder), it was reported that the motor vehicle crash rate was twice that among mentally ill drivers when compared to an age-adjusted sample.

19.2 GENERAL CONSIDERATIONS

19.2.1 Driving is a complicated psychomotor performance, which depends on fine coordination between the sensory and motor systems. It is influenced by factors such as arousal, perception, learning, memory, attention, concentration, emotion, reflex speed, time estimation, auditory and visual functions, decision making and personality. Complex feedback systems interact to produce the appropriate coordinated behavioural response. Anything that interferes with any of these factors to a significant degree may impair driving ability.

19.2.2 Evidence confirms that driver competency is adversely affected when the driver is in a state of stress or anxiety in excess of individual norms. It is therefore recommended that such people are advised against driving until the causative stressors are resolved.

19.2.3 **The health professional should ensure that a person in an active phase of mental illness does not drive. Some medications for mental illness may affect driver alertness and coordination. Practitioners should refer to the chapter on Medication / OTC Drugs on page 33 if there is any concern in this regard. Where a mental health condition is associated with epilepsy, the chapter on Epilepsy (page 27) should be referred to.**

19.2.4 The use of more modern drugs (especially antipsychotics) may improve compliance and therefore reduce symptoms incompatible with driving.

19.3 MEDICAL STANDARDS

19.3.1 The following table will assist in decision making regarding driving or licensing according to commonly used mental illness classifications.

19.3.2 Decisions on individual cases should be made with specific reference to the type of mental illness and present therapy, if applicable. Specialist consultation is advisable if in any doubt, particularly with respect to medication or cognitive impairment.

MEDICAL STANDARDS – MENTAL HEALTH	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
19a Acute Psychotic Illnesses	Should not drive during an active phase of a psychotic illness.
19b Aggressive Behaviour	Should not drive if aggression is not controlled. Where a patient has a history of overtly aggressive behaviour or has undergone long-term counselling or drug therapy for conditions in which overt aggression plays a part, psychiatric assessment is essential.
19c Anorexia Nervosa and Bulimia Nervosa	May drive if condition stable.
19d Anxiety and Panic Disorders	May drive if condition stable and patient capable of safe and responsible driving. Side effects of medication need to be assessed.
19e Bipolar Affective Disorder	May drive if condition stable. Psychiatric opinion recommended. Persons with acute manias should not drive.
19f Chronic Psychiatric Illness	May drive if condition stable and patient capable of safe and responsible driving.
19g Depression	May drive if condition stable. All patients on medication need to be assessed carefully. Should not drive if being stabilised on medication. Patients with severe depression and impaired concentration or agitation should not drive.
19h Past Psychiatric Illness	May drive if condition stable.
19i Personality Disorders	May drive if condition stable and patient capable of safe and responsible driving. Where personality disorders create behavioural problems which may have significant effects on the road safety of the patient or others, the driver licensing authority should be informed (see page 74).
19j Psychotic Illnesses	May drive if condition is not acute and patient capable of safe and responsible driving.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

20 METABOLIC AND ENDOCRINE DISORDERS

(excluding Diabetes)

20.1 RELEVANCE TO DRIVING TASK

20.1.1 Metabolic or endocrine disorders can cause many symptoms ranging from generalised asthenia, localised muscle weakness and spasm to tetany, sudden episodes of dizziness or unconsciousness. Unless controlled by adequate treatment, individuals so afflicted may have an increased risk of a crash.

20.2 GENERAL CONSIDERATIONS

20.2.1 Apart from effects on the endocrine system caused by renal conditions or diabetes, a number of metabolic or endocrine disorders, such as thyroid, pituitary, adrenal disorders and phaeochromocytoma, may have a deleterious effect on driving.

20.2.2 In determining a patient's fitness to drive, a major consideration will be on the level of control offered by treatment and the relative risk of any symptoms that could affect control of a vehicle.

20.3 MEDICAL STANDARDS

20.3.1 Following are medical standards for some important metabolic disorders. Related tables can be found in chapters on Renal Failure (page 50) and Diabetes (page 23).

MEDICAL STANDARDS – METABOLIC AND ENDOCRINE DISORDERS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
20a Addison's Disease	May drive if stable.
20b Adrenal or Cushing's Disease	May drive if stable.
20c Hyperthyroidism	May drive if stable and eligible under general vision criteria (see page 59).
20d Hypothyroidism	May drive if stable.
20e Parathyroid Disease	May drive if stable.
20f Phaeochromocytoma	May drive if stable.
20g Pituitary Disorders	May drive if stable. Should not drive if condition causes significant visual field defects.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

21 MUSCULO-SKELETAL DISORDERS**21.1 RELEVANCE TO DRIVING TASK**

- 21.1.1 There is no published data on the risk of a crash and/or loss of control of a vehicle due to locomotor disorders.
- 21.1.2 A motor vehicle driver must be able to carry out many complex muscular movements in order to control a vehicle properly. A person must have a good range of movement of the hips, knees, ankles, shoulders, elbows, wrists, fingers and the ability to rotate the head. Muscle power should be adequate.
- 21.1.3 It is however possible to drive safely with quite severe impairment, including the loss of both legs or one arm. Adaptive equipment can be installed in many vehicles (e.g. spinner knobs, automatic transmission and height adjustable seats) which enable many impaired drivers to operate vehicles safely. Physical demands on drivers of certain vehicles (e.g. buses, trucks) may be substantial and should be considered by the health practitioner.
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21.2 ASSESSMENT

- 21.2.1 The aim of a medical assessment is to detect those drivers who would have difficulty in controlling motor vehicles per se, or a specific motor vehicle type, because of musculo-skeletal disorder and to identify those drivers who would benefit from a specific vehicle adaptation.
- 21.2.2 In many cases a functional assessment by a driving assessor, or other paramedic endorsed by the local driver licensing authority, who is suitably qualified and trained as a driving assessor may be required. If neither of these is practicable a driving test could be recommended.
- 21.2.3 In many circumstances a conditional licence will depend on a suitable modification to the vehicle. For a conditional licence for a private vehicle such as a car, a driving test may be required in the modified vehicle.

21.3 MEDICAL STANDARDS

- 21.3.1 All patients who have marked reduction in the range of movement of the hips, ankles, knees, shoulders, elbows, wrists, fingers and neck should be assessed by a driving assessor.
- 21.3.2 Patients with a significant problem with muscle power, coordination or limb loss normally also need an individual driving assessment by an occupational therapist or other driving assessor.
- 21.3.3 The needs of motorcyclists are very different due to the type of controls and task in terms of balance and agility. These patients should cooperate with their health professional and get clearance from a driving assessor or the driver licensing authority before riding.
- 21.3.4 Patients with a plaster cast should refrain from driving until the cast is removed and limb function has returned. There may be specific exceptions: for example plaster on a left leg in a patient with an automatic car. These will need individual assessment.
- 21.3.5 If the disability permanently impairs the ability to drive safely, please notify the local driver licensing authority.

MEDICAL STANDARDS: MUSCULO-SKELETAL DISORDERS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS*
21a Disability of Cervical Region	Some loss of movement of head and neck allowable if vehicle fitted with adequate outside mirrors.
21b Disability of Thoracic Region	Persons with interscapular pain which prevents free movement of shoulder joints should not drive. Persons wearing braces or body casts should not drive without relevant specialist recommendation.
21c Disability of Lumbar Region	Persons with severe pain, reduced mobility or neurological impairment, should not drive. Advise persons with moderate lumbar pain to use vehicle with power brakes, steering and automatic transmission.
21d Inflammatory Arthritis	Should not drive if the condition directly affects the ability to drive. May drive once condition stabilised. Driving assessor opinion may be needed.
21e Joint Replacement	Driving assessor opinion is required if limitation of function.
21f Loss of Limbs (including functional loss)	All cases where there is loss of limb/s need to be individually assessed. A conditional licence may be issued after assessment by an interdisciplinary rehabilitation medicine prosthetic clinic and suitable vehicle modifications are made. Patient's licence will be restricted to modified vehicle.
21g Loss of Thumbs and Fingers	Digit losses to be assessed with regard to spinner knobs etc. Driving assessor opinion recommended.
21h Painful Joints	Should not drive if the condition directly affects the ability to drive. May drive once condition stabilised. Driving assessor opinion may be needed.
21i Post Surgery	Should not drive for 6 weeks post major orthopaedic surgery. Driving assessor opinion is recommended unless specialist opinion indicates that it is not necessary.
21j Prostheses	Driving assessor opinion required. A driving test may be necessary.
* All disabled motorcyclists will need to be assessed by a driving assessor.	

'Driving assessor' is defined in this document as a health professional who assesses the fitness to drive of those with a medical condition.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

22 NEUROLOGICAL DISORDERS (excluding Epilepsy)

22.1 RELEVANCE TO DRIVING TASK

22.1.1 At present, no empirical evidence can be cited about the incidence of vehicle crashes across a given population of drivers suffering from a neurological disorder. However, it is certain that symptoms which are common to many neurological conditions, such as potential spontaneous loss of consciousness, confusional states, impairment of muscular power and coordination etc. are deleterious to the safe handling of a vehicle.

22.2 GENERAL CONSIDERATIONS

22.2.1 The patient with a neurological disorder (including cerebro-vascular disease — see Strokes, page 44) must be assessed to determine whether the sum of symptoms and signs, being physical, mental and behavioural is compatible with driving.

22.2.2 Any impairment of consciousness or awareness, or the presence of confusion or vertigo, is usually incompatible with driving. Muscular power and coordination should be adequate to control the motor vehicle safely.

22.2.3 A loss of control of the limbs caused by paralysis, paresis or other neurological conditions may not necessarily prevent a person from driving safely. However, vehicle controls may require modification.

22.2.4 If the practitioner is concerned about a patient's ability to drive safely, the patient should be urged to seek the assistance of a driver assessment service or appropriate allied health assessment.

22.3 MEDICAL STANDARDS (see opposite page)

MEDICAL STANDARDS – NEUROLOGICAL DISORDERS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
22a Berry Aneurysms	Should not drive after detection until assessed by a neurosurgeon or neurologist who confirms fitness to drive.
22b Cerebral Palsy	Should not drive if capacity to control vehicle is impaired. Neurological assessment recommended to determine if degree of impairment affects safe driving. If uncertainty remains, referral to a driving assessor is recommended. The driver licensing authority may issue a conditional driver licence if condition stable.
22c Cognitive Impairment and Dementia	Patients should not drive if there is significant impairment of memory, visuospatial skills, insight or judgement or if problematic hallucinations or delusions. Baseline and regular review are required as most forms of cognitive impairment and dementia are progressive. Relatives may provide valuable information about driving ability, this information needs careful assessment, however. If unsure refer to a driving assessor. Where a driving assessment is refused by the patient, then consideration should be given to reporting the matter to the driver licensing authority.
22d Head Injuries	If significant injury, should not drive until assessed by a neuro-surgeon or neurologist and, if required, a driving assessor. If minor injury requiring 4 hour observation, should not drive for 24 hours.
22e Intellectual Impairment	The severity of intellectual impairment should be judged individually and rely on appropriate professional advice, including neurological and neuropsychological advice. The driver licensing authority will require a test by a driving assessor before considering issue of a licence or conditional licence.
22f Loss of Control of the Limbs	Driver licensing authority may issue a conditional licence after assessment by a driving assessor and appropriate modifications to the vehicle are made. If disorder is progressive, periodic review is required.
22g Multiple Sclerosis	Should not drive if has poor coordination, weakness, vertigo, memory loss or visual impairment. Driver licensing authority may issue conditional licence, if safe to drive. Periodic reviews (max. yearly), assessment by specialist and, if necessary, driving assessor recommended.
22h Neglects *	Should not drive until assessed by a driving assessor and appropriate modification of the vehicle is made. If disorder is progressive, periodic review is required. See also 'Visual Field Defects', page 60.

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MEDICAL STANDARDS – NEUROLOGICAL DISORDERS

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
22i Parkinsonism	Should not drive if capacity to control vehicle is impaired. Neurological assessment recommended to determine if degree of impairment affects safe driving. If uncertainty remains, referral to a driving assessor is recommended. The driver licensing authority may issue a conditional driver licence if condition stable.
22j Peripheral Neuropathy	Should not drive if difficulties with sensation (particularly proprioception) or severe weakness until cleared by specialist and, if necessary, driving assessor.
22k Post Intracranial Surgery	Should not drive until cleared by relevant specialist (neurosurgeon/neurologist). Period without driving is 12 months for epilepsy surgery.
22l Strokes	Should not drive for a minimum of 1 month post event if there is significant neurological, perceptual or cognitive deficit. Return to driving depends upon physician assessment and, where appropriate, evaluation by a driving assessor. A visual field defect need not necessarily exclude driving but patient must meet all visual criteria specified in this book (see page 59). Dense hemiplegia, visual field defect, visual or sensory neglects and receptive dysphasia require specialist assessment and clearance in accordance with these guidelines.
22m Subarachnoid Haemorrhages	Should not drive for 3 months post event. Medical and occupational therapist assessment recommended. If appropriate, refer to an ophthalmologist or optometrist for assessment of visual fields.
22n Syncope	Should not drive for 4 weeks after an episode of unknown cause. If recurrent episodes, refer to relevant specialist for assessment.
22o Transient Ischaemic Attacks	May drive on advice of physician. Persons having recurrent events that could impair driving ability should not drive until neurological investigation leads to effective prophylaxis.
22p Vascular Malformations of the Brain	Should not drive until assessed by a specialist. The driver licensing authority may issue a conditional licence if the risk of complications is small and patient free of other conditions such as Epilepsy.

*** Whilst patient perceives, does not respond appropriately.**

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

Note: ‘Driving assessor’ is defined in this document as a health professional who assesses the fitness to drive of those with a medical condition.

23 OLDER DRIVERS

23.1 RELEVANCE TO DRIVING TASK

- 23.1.1 The term 'older driver' is used here without reference to a specific age group. This is because age-associated driving defects may begin to affect some individuals from as low as age 40 but others at a far more advanced age.
- 23.1.2 It is known that, after the age of 70, the average driver has a higher collision rate per kilometre travelled when all factors are taken into account. In addition, fatality risk increases with age, partly as a result of increasing fragility.
- 23.1.3 Although the rate of physical and mental decline varies greatly from person to person, the physiological changes that accompany ageing eventually affect everyone's ability to drive safely. The borderline between acceptable decline, which may be compensated for by long experience and voluntary limitation of driving, and hazardous deterioration, is often hazy.

23.2 GENERAL CONSIDERATIONS

- 23.2.1 Advanced age is not in itself a barrier to driving. Therefore, in assessing an older person's ability to drive safely, it is important to consider his or her functional ability, rather than chronological age. This should be done in view of State or Territory requirements relating to minimum standards including those for vision (see page 47). There are a number of conditions, which become more prevalent with age and reduce the capacity to drive safely. Apart from using this section of the book, the health professional may need to refer to other sections for guidance (e.g. cardiovascular). Particular attention should be paid to mental alertness, reaction time and muscular coordination. The possible side effects of required drugs, such as antihypertensives, tranquillisers and hypnotics should never be ignored. Idiosyncratic and age differences in side effects should be carefully assessed.
- 23.2.2 It is important that age-associated conditions are detected and taken account of appropriately and fairly in assessing driving ability. The medical practitioner can be flexible and may recommend a restricted licence instead of withdrawal of licence.
- 23.2.3 If the practitioner is concerned about a patient's ability to drive safely, the patient should be urged to seek the assistance of a driver assessment service or appropriate allied health assessment. In many cases, referral to a geriatrician may assist in resolving issues in which some doubt exists.

23.3 MENTAL FACULTIES

- 23.3.1 While an older person's physical condition may be adequate, it is important that mental ability is taken into account in assessing capacity to drive safely, particularly where there is evidence of early dementia.
- 23.3.2 Adequate cognitive functioning is important to the driving task. Ability to carry out the following processes should be gauged in assessing driving competence:
- attention
 - concentration
 - hallucinations and delusions
 - insight
 - judgement
 - memory
 - problem-solving skills
 - thought processing
 - visuo-spatial skills

23.4 PHYSICAL FUNCTIONING

- 23.4.1 Frequently an older driver has several minor physical defects, each of which taken separately may not affect driving ability very much. However, when taken together, these defects may make driving potentially dangerous, particularly if the defects are accompanied by some slowing of ability to convert perception and judgement into timely action.
- 23.4.2 The medical practitioner should consider the following possible age-associated changes:
- vision
 - reaction times
 - hearing
 - upper and lower limb strength / movement
 - neck and trunk movement range

23.5 DRIVING TESTS

- 23.5.1 If the health professional has any doubt about an elderly driver's ability to drive safely, a driving test should be recommended to the driver licensing authority. Alternatively, it may be preferable for the driver to seek driver rehabilitation services and have driving capabilities reviewed by a driving assessor.
- 23.5.2 Elderly people required to do a driving test may feel anxious. The health professional might suggest that confidence may sometimes be improved with one or two driving lessons.

23.6 RESTRICTIONS AND CONDITIONAL LICENCES

- 23.6.1 In cases where an older person is not fully fit to drive in all circumstances, the health professional may recommend some restrictions under which driving could be performed safely. A comprehensive listing of possible conditions can be found on page 72. Driving conditions should always be measurable or quantifiable such as:
- daylight driving only
 - only to drive an automatic vehicle
 - restricted to driving within ____ km of residence
 - not to drive on 100 km/h roads etc.
- 23.6.2 Conditions applied are formalised by written recommendation to the driver licensing authority. The health professional should explain to the patient the reasons for recommending any restrictions on licensing.

23.7 STATE AND TERRITORY RULES ON AGE AND LICENSING

23.7.1 The table below summarises State and Territory older driver licensing at December 2000.

STATE AND TERRITORY RULES ON AGE AND DRIVER LICENSING			
PLACE	VISION TEST FROM AGE	MEDICAL CERTIFICATE FROM AGE	ROAD TEST FROM AGE
ACT	For 1st licence, then at ages 50, 60, 65, 70 and 75; thereafter annually.	75 and annually thereafter.	Nil.
NSW	All drivers on initial licence and all drivers on each renewal.	Annual review for all licence classes from 80. Drivers of road-trains are subject to periodic review at 21 and every 10 yrs up to 40; at 40; then every 5 yrs thereafter; at 60, then every 2 years thereafter; at 70 and thereafter annual review. Dept of Transport has separate arrangements for drivers of public passenger vehicles.	85 for all car drivers (Class C). 70 for road-train drivers (Class MC). 80 for drivers of all buses, trucks, and motorcycles (Class R, LR, MR, HR and HC).
NT	All drivers every 5 years; shorter periods on medical advice.	Commercial Passenger Vehicle drivers and Driving Instructors every 5 years. Shorter periods on medical advice.	Nil.

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STATE AND TERRITORY RULES ON AGE AND DRIVER LICENSING (cont'd)

PLACE	VISION TEST FROM AGE	MEDICAL CERTIFICATE FROM AGE	ROAD TEST FROM AGE
QLD	All drivers on renewal.	75, or earlier if problem declared.	Nil.
SA	Yearly from 70.	Yearly from 70.	For licences other than C, annually from age 85. If requested by medical practitioner at any age.
TAS	Yearly from 75.	Yearly from 75.	Yearly from 85.
VIC	1st licence only or if declared or reported.	If declared or reported; regular tests for drivers of public vehicles.	If declared or reported.
WA	75, 78 and yearly from 80.	75,78 and yearly from 80.	At 85 and then yearly.
New Zealand	Included in Medical Check.	75 years and every 2 years from age 80.	Every 2 years after age 80.

24 PREGNANCY

24.1 RELEVANCE TO DRIVING TASK

- 24.1.1 In normal circumstances, pregnancy should not be considered a barrier to driving. However, conditions that may be associated with some pregnancies should be considered when advising patients. These are listed in the following table.

24.2 MEDICAL STANDARDS

MEDICAL STANDARDS – PREGNANCY	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
24a Fainting or Light-headedness	Should not drive whilst symptoms persist.
24b Gestational Diabetes	Patient should be cautioned if placed on medication. Should not drive until cleared by treating doctor (but see Diabetes, page 23).
24c Hyperemesis Gravidarum	Should not drive if severe nausea or vomiting. Medication used can impair driving ability.
24d Hypertension in Pregnancy	Should not drive if develops hypertension acutely or has proteinuria. Caution should be advised if commenced on anti-hypertensive medication.
24e Post Natal Depression	See Mental Health on page 36.
24f Post Caesarean Section.	Should not drive until cleared by a medical practitioner.
24g Seatbelts	Must always wear seatbelt in a motor vehicle. Lower belt to run as low as possible. See Seatbelt Use on page 68.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

25 RENAL FAILURE

25.1 RELEVANCE TO DRIVING TASK

25.1.1 For patients suffering chronic renal failure, there is a potential hazard when they undertake long journeys. In warmer weather, excessive salt and fluid loss are a possibility. Access to medical facilities ought to also be considered. Driving in areas where assistance is difficult to obtain (e.g. off-road or outback driving) may also be problematic.

25.2 MEDICAL STANDARDS

25.2.1 Patients suffering from chronic renal failure may now lead relatively normal lives, provided that renal dialysis is performed at regular intervals and the result is satisfactory. They are therefore quite capable of driving a vehicle safely.

25.2.2 Care should be taken in assessing those likely to be involved in long-distance driving.

MEDICAL STANDARDS – RENAL FAILURE	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
25a Renal Failure	Should not limit a person's ability to drive. Other problems may arise that need to be assessed individually such as hypertension and medication.
25b Renal Transplant	Should not drive until cleared by relevant specialist.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

26 RESPIRATORY DISEASES**26.1 RELEVANCE TO DRIVING TASK**

- 26.1.1 There are relatively few diseases of the respiratory system which interfere with the driving process. However, severe respiratory disorders which cause inadequate oxygen and/or increased carbon dioxide uptake to the brain and heart, often lead to symptoms such as poor judgement, agitation, drowsiness, reduced concentration, weakness and cardiac effects which may pose a significant threat to driving competency.

26.2 GENERAL CONSIDERATIONS

- 26.2.1 In cases of chronic obstructive airway disease, the driving task may be impaired to varying degrees, depending upon the type and phase of the condition. Careful assessment of driving ability is warranted in the following cases:
- severe chronic asthma
 - severe chronic bronchitis
 - severe chronic emphysema
 - chronic respiratory failure.

26.3 MEDICAL STANDARDS

- 26.3.1 Patients with injuries or deformities (i.e. mouth or throat) that significantly impair breathing, have cor-pulmonale or become dyspnoeic when walking on a level surface at their own pace, should not drive. If associated with collapse, refer also to Syncope, page 56.

MEDICAL STANDARDS – RESPIRATORY DISEASES

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
26a Asthma	Can drive if well controlled and no significant side effects from the condition or medication. Should not drive for 2 weeks after admission to an ICU or loss of consciousness, unless otherwise cleared by a specialist.
26b Chronic Obstructive Airways Disease	Can drive if well controlled and no significant side effects from the condition or medication.
26c Oxygen Therapy	Should not drive if patient actually using oxygen whilst driving. May drive if on oxygen for quality of life and able to have periods off oxygen; advise assessment by respiratory physician (forward specialist report to Driver licensing authority).
26d Post Thoracotomy	Should not drive for 4 weeks post surgery.
26e Recurrent Pneumothorax	Should not drive for 2 weeks post pneumothorax unless cleared by a medical practitioner.
26f Respiratory Failure	Should not drive if patient becomes significantly dyspnoeic when walking on level surface.
26g Tracheostomy	May drive if clinically stable.
26h Tuberculosis	May drive.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

27 SLEEP DISORDERS**27.1 RELEVANCE TO DRIVING TASK**

- 27.1.1 Studies of road crash records from USA and Europe have suggested a crash rate from 2.5 to 12 times greater in those suffering sleep apnoea than age-matched controls.
- 27.1.2 Excessive sleepiness caused by narcolepsy clearly puts the driver at risk. Many sufferers, by strong motivation and various measures (open windows, cold air) find that they can force themselves to stay awake. However, they can be subject to sleep attacks without warning, and/or cataplexy, which place them at extreme risk.

27.2 NARCOLEPSY

- 27.2.1 Sufferers of Narcolepsy may experience:
- excessive daytime sleepiness
 - cataplexy
 - sleep paralysis
 - vivid hypnagogic hallucinations
- 27.2.2 Tricyclic antidepressants and MAO Inhibitors are used to treat cataplexy while a combination of chemical stimulant and behavioural therapy may be required to treat sleepiness. The effects of these medications may need to be considered in relation to driving.
- 27.2.3 Narcolepsy can be diagnosed by ascertaining the patient's history, in conjunction with multiple sleep latency test (MSLT). Overnight sleep study is necessary on the night prior to the MSLT to be certain that there are no other sleep disorders and to aid MSLT interpretation. The majority of sufferers are HLA — DR2 positive. Importantly there is a subgroup of excessively sleepy individuals who do not have the diagnostic features of narcolepsy, but nonetheless are pathologically sleepy.

27.3 SLEEP APNOEA

- 27.3.1 The common form of sleep apnoea involves obstruction to the upper airway precipitated by relaxation of the dilator muscles of the pharynx and tongue during sleep, causing cessation (apnoea) or reduction (hypopnoea) of breathing due to obstruction. Common symptoms of obstructive sleep apnoea syndrome are witnessed recurring cycles of apnoea and snoring and arousal, with choking episodes that cause interruption to the normal sleep pattern. This leads to excessive daytime sleepiness, which may impair driving performance and compromise road safety.

- 27.3.2 Central sleep apnoea refers to a similar pattern of cyclic apnoeas or hypopnoeas caused by instability of respiratory neural drive rather than to upper airway factors. This condition is less common than obstructive sleep apnoea and is associated with cardiac and neurological conditions or may be idiopathic. Hypoventilation associated with chronic obstructive pulmonary disease or chronic neuromuscular conditions may also interfere with sleep quality causing excessive sleepiness.
- 27.3.3 If the health professional suspects obstructive sleep apnoea or central sleep apnoea, the patient should be referred to a sleep laboratory, which has the appropriate diagnostic equipment. Under some circumstances, wakefulness testing may also be appropriate.
- 27.3.4 The symptoms of excessive daytime sleepiness and cognitive dysfunction are improved by treatment which may include nasal CPAP (continuous positive airway pressure) or nocturnal ventilatory support.

27.4 MEDICAL STANDARDS

- 27.4.1 If the health professional is unsure about the safety of a patient with a sleep disorder, it may be appropriate to refer him or her to a sleep laboratory for assessment.
- 27.4.2 Special consideration should be given to long-distance drivers and how they will comply with treatments.

Where a patient has had a crash because of falling asleep whilst driving, the patient should be excluded from driving until successfully treated.

MEDICAL STANDARDS – SLEEP DISORDERS

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
27a Narcolepsy	<ul style="list-style-type: none"> • All patients suspected of having narcolepsy should be warned about potential impact on road safety. • High-risk patients should not drive until disorder investigated and treated effectively. High risk includes severe daytime sleepiness, uncontrolled cataplexy or history of motor vehicle crashes caused by inattention or sleepiness. • High-risk individuals whose condition is untreatable or is not amenable to expeditious treatment within 2 months or are unwilling to accept treatment or unwilling to restrict driving until effective treatment has been instituted should not drive. Reporting to the driver licensing authority should be considered. • All cases of narcolepsy should be subject to review at least annually. Initial sleep physician or neurologist opinion recommended. • Where the patient has been involved in a crash as a result of sleeping at the wheel, driving should be disallowed until the condition has been successfully treated.
27b Sleep Apnoea	<ul style="list-style-type: none"> • All patients suspected of having sleep apnoea or other sleep disorders should be warned about potential impact on road safety. • High-risk patients should not drive until disorder investigated and treated effectively. High risk includes severe daytime sleepiness or history of motor vehicle crashes caused by inattention or sleepiness. • High-risk individuals whose condition is untreatable or is not amenable to expeditious treatment within 2 months or are unwilling to accept treatment or unwilling to restrict driving until effective treatment has been instituted should not drive. Reporting to the driver licensing authority should be considered. • High-risk patients with proven sleep apnoea should be reviewed at least annually by a sleep physician. • Where the patient has been involved in a crash as a result of sleepiness at the wheel, driving should be disallowed until the condition has been successfully treated.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

28 SYNCOPE

28.1 RELEVANCE TO DRIVING TASK

Unpredictable, spontaneous loss of consciousness is incompatible with safe driving.

28.2 MEDICAL STANDARDS

MEDICAL STANDARDS – SYNCOPE	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
28a Cardiac Arrhythmia with a Near or Definite Collapse	Should not drive. Driver licensing authority may issue conditional licence on medical certificate that patient has been symptom free under treatment for at least 2 months.
28b Hypotension	Should not drive if the condition is severe enough to cause frequent episodes of loss of consciousness without warning. If predictable hypotension results the patient may drive. If from medication, person should not drive for 4 weeks or until stabilised.
28c Respiratory Illness Associated with Syncope	Should not drive if suffers syncope from hypoxia. May drive after one month if the condition is reversible, treatment has been instituted and the condition has been stabilised.
28d Syncope/ Fainting	A single episode of syncope/fainting of unknown cause renders a patient unable to drive for at least 4 weeks after the event. Recurrent episodes require specialist opinion.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

29 VESTIBULAR DISORDERS**29.1 RELEVANCE TO DRIVING TASK**

- 29.1.1 Driving ability is affected by a defect in balance and is therefore dependent on the normal functioning of the vestibular mechanism. Vestibular malfunction can occur suddenly and with sufficient severity to make safe driving of any type of vehicle impossible. It is often accompanied by nystagmus, which compounds the disability in regard to driving.

29.2 GENERAL CONSIDERATIONS

- 29.2.1 Driving ability may be affected by unheralded attacks of vertigo which are associated with many vestibular disorders. Many vestibular disorders may vary between symptomatic and asymptomatic with little warning.
- 29.2.2 Subsequent to an initial attack of vertigo due to acute labyrinthitis, there may be further recurrence of vertigo for up to 12 months. Given that there are no peremptory symptoms, a sudden inability to drive may eventuate.
- 29.2.3 In cases of benign paroxysmal vertigo which causes nystagmus and cases of vertigo when specific head positions are assumed, recurrence of symptoms is likely to present for many years despite treatment. This makes it quite difficult to isolate a given phase of the condition where symptoms deleterious to an individual's fitness to drive may be present.
- 29.2.4 In confirmed Meniere's disease, vestibular malfunction and nystagmus can occur despite treatment. The natural history is of progression associated with increasing deafness until, in the extreme, total loss of vestibular and cochlear function occurs. Whilst sufferers of this condition should not be driving commercial vehicles, they may be able to hold a conditional private licence.

29.3 MEDICAL STANDARDS

- 29.3.1 Generally, those who suffer from unheralded attacks of vertigo should not drive. Vestibular function should be assessed by using a simple Romberg test. The opinion of an otorhynolaringologist may be sought.

MEDICAL STANDARDS – VESTIBULAR DISORDERS

CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
29a Acute Labyrinthitis	Should not drive while symptoms persist.
29b Benign Paroxysmal Vertigo	Should not drive during exacerbations of the condition.
29c Meniere's Disease	Should not drive during exacerbations of the condition.
29d Recurrent Vertigo	Should not drive while symptoms persist.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.

30 VISION AND EYE DISORDERS**30.1 RELEVANCE TO DRIVING TASK**

30.1.1 Good vision is essential to the proper operation of a motor vehicle. Any marked loss of visual acuity or visual field will diminish an individual's ability to drive safely. A driver with a significant visual defect may fail to detect another vehicle and/or pedestrians and will take appreciably longer to perceive and react to a potentially hazardous situation.

30.2 GENERAL CONSIDERATIONS

30.2.1 The two most important aspects of vision in relation to driving are:

- visual acuity
- visual fields

30.2.2 For the purposes of this book, visual acuity may simply be defined as the best obtainable vision with or without glasses or contact lenses. It should be measured using a standard Snellen chart in good illumination.

30.2.3 An adequate field of vision is essential so that a driver can detect other vehicles and pedestrians to the side of the line of vision. The visual field may be initially assessed by using the confrontation test.

30.2.4 There may be a degree of flexibility allowed at the optometrist's or ophthalmologist's discretion for individuals who barely meet visual standards but who are otherwise alert, have normal reaction times and good muscular coordination. In such cases the driver licensing authority may consider a conditional licence. In addition, health professionals may wish to recommend restrictions on the driver licences of individuals who appear to meet the visual criteria in the clinical setting but may, in certain environments have extreme difficulty. Examples of such restrictions might be 'daylight driving only', where certain disorders or diseases such as retinitis pigmentosa can cause poor night vision, or distance and/or speed restrictions.

30.3 MEDICAL STANDARDS

Although loss of visual function can often be adequately compensated for, health professionals should make patients aware of the nature and extent of their disability and of any possible compensatory precautions.

MEDICAL STANDARDS – VISION AND EYE DISORDERS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
30a Acuity	Should not drive if binocular visual acuity is less than 6/12. Visual acuity must be measured with both eyes open while wearing any corrective lenses usually worn for driving. More than one error in reading the letters of the 6/12 line is a fail. Where a patient fails the test, eyesight must be corrected before the patient is fit to drive. On the first occasion that lenses are prescribed to meet the 6/12 standard, the patient should be advised of the legal requirement to notify the driver licensing authority. <i>See also Visual Field Defects, below.</i>
30b Colour Vision Defects	No restriction. Patients with red (protan) colour defects should be cautioned about hazardous situations - especially traffic lights, brake lights and parked cars at night. These patients should be advised that they are not eligible for a commercial vehicle licence.
30c Visual Field Defects (Binocular)	Should not drive if visual field along the horizontal meridian is less than 120 ⁰ when measured with a Goldman IV4e target or its equivalent. Automated visual field tests, including the Estermann Field Test, are acceptable in the absence of clinical evidence of more peripheral field deficits.
Hemianopia	Normally fail to meet visual field requirement.
Quadrantanopia	Should not drive until driver licensing authority has considered optometrist's or ophthalmologist's report.
Scotomas	Should not drive until driver licensing authority has considered optometrist's or ophthalmologist's report.
30d Eye Movement Conditions Diplopia	Those with diplopia within the central 20 ⁰ should not drive. In other cases, where diplopia is long-standing and there is adequate compensation, a conditional licence may be considered on the certificate of optometrist or ophthalmologist that patient meets 'loss of vision in one eye' standard for the unoccluded eye. The certificate should specify any other condition (e.g. occlusion of one eye).
30e Loss of Vision In One Eye	Should not drive for 3 months after loss of binocular vision. May then drive if meets visual acuity and other vision criteria. Should have mirrors on both sides of car or motorcycle.
30f Other Visual Conditions Cataracts	Must meet the visual acuity and other criteria and be aware that patients may have difficulty with glare. The opinion of an ophthalmologist or optometrist may be required.

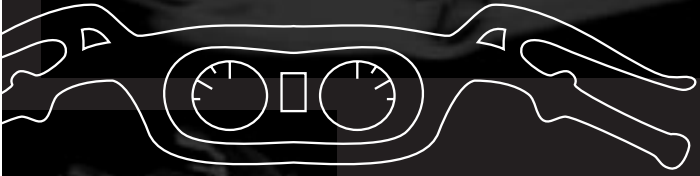
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MEDICAL STANDARDS – VISION AND EYE DISORDERS (cont'd)	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
30g Conjunctivitis and Anterior Eye Infections.	Should not drive if severe and affecting eye comfort or vision.
30h Diabetic Retinopathy	May drive if vision meets vision criteria (this chapter). Regular review by an eye practitioner is required.
30i Eye Padding (acute short term problems)	If one eye is padded for any reason the patient should be advised not to drive until the pad is removed and vision has returned.
30j Glaucoma	May drive if an optometrist's or ophthalmologist's report is obtained stating that the visual acuity, visual field and other vision criteria are met. Must be subject to regular review of vision and visual fields.
30k Medication	If mydriatics or other medications are used, there may be impairment of vision for periods varying from a few hours upwards. Patients should be counselled accordingly. See also Topical Eye Medication, page 35.
30l Nystagmus	Should not drive if binocular visual acuity is worse than 6/12. The driver licensing authority may consider issuing a restricted licence on receipt of a favourable report from an ophthalmologist or optometrist
30m Poor Night Vision	Should not drive at night or in poor visibility conditions or environments. The driver licensing authority may issue a conditional licence for daylight driving. Optometrist's or ophthalmologist's opinion recommended.
30n Post Surgery	Should not drive following eye surgery unless cleared by an ophthalmologist. In evaluating return to driving, consideration should be given, where relevant, to Loss of Vision in One Eye on the previous page and to other provisions in these guidelines (e.g. Anaesthesia).
30o Retinitis Pigmentosa	May drive if meets all visual criteria. Night driving may be especially problematic and requires ongoing regular review.

Patients should be made aware about the effects of their condition on driving and advised of their legal obligation to notify the driver licensing authority where driving is likely to be affected. As a last resort, practitioners may themselves advise the driver licensing authority.



PART C: APPENDICES



BIBLIOGRAPHY

- Australasian Faculty of Occupational Medicine, *Medical Examinations of Commercial Vehicle Drivers*, Prepared for the National Road Transport Commission and the Federal Office of Road Safety (now known as the Australian Transport Safety Bureau), November 1994.
- Baily, T., *A Comparative Study of Guidelines for Determining Medical Fitness to Drive*, Office of Road Safety, Department of Transport, South Australia, November 1994.
- Cairney, P.T., *Improving Truck Safety in Australia*, Special Report No. 46, Australian Road Research Board, 1991.
- Cardiac Society, *Fitness of Cardiac Patients to Hold Driving Licences*, Cardiac Society of Australia and New Zealand, Sydney, Draft Dated August 1992.
- Chesher, G., et al, *The Effects of Methadone, as used in a Methadone Maintenance Program, on Driving Related Skills*, 1989.
- Cole, B.L. and Madocks, J.D., *Defective Colour Vision is a Risk Factor in Driving, Colour Vision Deficiencies XIII*, 1–13, 1995.
- Commonwealth Department of Human Services and Health, *Handbook for Medical Practitioners and other Health Care Workers on Alcohol and other Drug Problems*, Australian Government Publishing Service, 1994.
- Drivers and Riders — *Guidelines for Medical Practitioners*, Roads and Traffic Authority NSW, 3rd Edition, 1993.
- Drivers and Riders — *Guidelines for Medical Practitioners*, Queensland Transport, 1994.
- Finch, C.F., et al, *Head Injury Reductions in Victoria Two Years after Introduction of Mandatory Bicycle Helmet Use*, Report No. 51, Monash University Accident Research Centre, July 1993.
- FORS, *National Guidelines for Medical Practitioners in Determining Fitness to Drive a Motor Vehicle*, Federal Office of Road Safety (now known as the Australian Transport Safety Bureau), 1988.
- Hiv101, Victorian AIDS Council / People living with HIV / AIDS Program, by personal correspondence, 1995.
- Hull, M., *Driver Licence Review – Functionally Impaired and Older Drivers*, Report DP 91/1, Road Safety Division, VicRoads, May 1991.
- Interim General Driver Licensing Guidelines for Medical Practitioners*, VicRoads, Nov 1994.
- Medical Aspects of Fitness to Drive — A Guide for Medical Practitioners*, Land Transport Division, Ministry of Transport, New Zealand, Nov 1990.
- Medicines and Driving*, Self Care Pharmaceutical Society of Australia., 1988.
- Merlin, G., et al, *Responsibility of Psychotropic Drugs in Road Accidents*, La Presse Medicale, 20(9), 409–412, 1990.
- MIMS, Various issues, MediMedia Australia Pty Ltd.
- National Health and Medical Research Council, *Diabetes and Driving*, 1992.
- Oster, G., et al, *Benzodiazepine Tranquillisers and the Risk of Accidental Injury*, American Journal of Public Health, 80(12), 1467–1470, 1990.
- Parliamentary Road Safety Committee of Victoria, *The Effects of Drugs other than Alcohol on Road Safety*, 1st Report Incorporating Collected Papers, May 1995.
- South, D., *Alcohol in Road Accidents in Victoria 1977–1993*, Report No. GR 94–13, Road Safety Department, VicRoads, Dec 1994.
- Stoohs, R., et al, *Obstructive Sleep Apnoea, Snoring and Accidents in Commercial Truck Drivers*, Sleep Research, 1, Supplement 1, 441A, 1992.
- Trinca, G.W., *Clinical Versus Licensing Approach in Determining Fitness to Drive*, A Paper Presented at 14th World Congress of the International Association for Accident and Traffic Medicine, Singapore, 20–23 Aug, 1995.
- Warden-Flood, J., *Handbook for Patient Medication Counselling*, Pharmaceutical Society of Australia, 1987.
- Wylie, G., *Variation in Relative Safety of Australian Drivers with Age*, Australian Government Publishing Service, 1996.

DISABLED CAR PARKING / TAXI SERVICES

Persons suffering substantial levels of disability may be eligible for disabled parking permits and discount taxi fares. The practitioner should direct enquiries to the contacts shown below. Taxi subsidies may be available only to those physically unable to use public transport.

CONTACTS FOR TRANSPORT ASSISTANCE FOR THE DISABLED		
STATE	PERMITS FOR CAR PARKING FOR THE DISABLED	DISCOUNT TAXI SERVICES
ACT	Road User Services P.O. Box 582 Dickson ACT 2602 (02) 6207 7000	ACT Taxi Subsidy Scheme GPO Box 825 Canberra ACT 2601 (02) 6207 1108
NSW	Any motor registries, or contact Customer Service Centre, RTA P.O. Box K198 Haymarket NSW 1238. Tel 132213	Department of Transport Locked Bag 5310 Parramatta NSW 2124. 1800 623 724 or (02) 9689 8808
NT	Contact your local council.	Territory Health Services Community Care Centre, Disability information Officer PO Box 4596 Casuarina NT 0811 Casuarina (08) 8999 2898 Palmerston (08) 8999 3344
QLD	Disabled Parking Queensland Transport P.O. Box 673 Fortitude Valley Qld 4006 (07) 3253 4071	Public Transport Division Queensland Transport PO Box 673, Fortitude Valley Qld 4006 (07) 3253 4954
SA	Registration and Licensing 60 Wakefield St Adelaide SA 5000 (08) 8226 7421	Access Cabs, Passenger Transport Board Box 1998 GPO Adelaide SA 5001 (08) 8303 0822
TAS	Transport Access Scheme Department of Infrastructure, Energy and Resources GPO Box 1002K, Hobart Tas 7001 (03) 6233 5227	Transport Access Scheme Department of Infrastructure, Energy and Resources GPO Box 1002K Hobart Tas 7001 (03) 6233 5227
VIC	Contact your local council.	Victorian Taxi Directorate Level 6, 14/20 Blackwood Street North Melbourne Vic 3051 (03) 9320 4361
WA	ACROD Unit 1/59 Walters Drive Osborne Park WA 6017 (08) 9242 5544	Taxi Users Subsidy Scheme, Transport PO Box 7272 Cloisters Square WA 6850 (08) 9320 9563

DRIVERS LEGAL BAC LIMITS BY STATE AND TERRITORY

SUMMARY OF STATE AND TERRITORY LAWS ON BAC AND DRIVING

STATE OR TERRITORY	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS	DRIVERS OF TRUCKS, TAXIS AND BUSES
ACT	The legal BAC limit applying to learner, provisional and probationary drivers, restricted licence holders, taxi drivers, private hire car drivers and Commonwealth chauffeur drivers is below .02 BAC . The legal limit for drivers of cars, trucks and buses (excluding public vehicles) up to 15 tonnes GVM and riders of motorcycles who hold a full licence (gold) is below .05 BAC .	The legal BAC limit applying to drivers of heavy motor vehicles exceeding 15 tonnes GVM, dangerous goods vehicles, public vehicles (taxis and buses) is also below .02 BAC .
NSW	Learner licence holder, provisional licence holder, unlicensed, driver under 25 with less than 3 years licensed (not learner licences) driving, supervising driver .02 BAC . Drivers not listed elsewhere .05 BAC .	Drivers of trucks over 13.9 tonnes GVM, all drivers of taxis, coaches or commercial buses and drivers of any vehicles carrying dangerous goods or radioactive substances .02 BAC .
NT	Unlicensed and learner drivers, provisional licence holders, drivers under 25 with less than 3 years experience, zero BAC . Drivers not listed elsewhere .05 BAC .	Drivers of vehicles over 15 tonnes GVM, public passenger vehicles, dangerous goods vehicles, vehicles with persons unrestrained in an open load space, vehicles carrying more than 12 persons, driving instructors while instructing, licensed drivers under age 25 licensed less than 3 years, zero BAC . Drivers not listed elsewhere .05 BAC .
QLD	Learner permit holders under age 25, provisional licence holders under age 25 and unlicensed drivers under age 25, zero BAC . Open licence holder .05 BAC .	Drivers of vehicles over 4.5 tonnes GVM, dangerous good vehicles, taxis, private hire vehicles (limousines), buses, tow trucks, drivers of driving instruction vehicles and pilot vehicles zero BAC .

SUMMARY OF STATE AND TERRITORY LAWS ON BAC AND DRIVING (cont'd)		
STATE OR TERRITORY	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS	DRIVERS OF TRUCKS, TAXIS AND BUSES
SA	Learner permit holders and provisional licence holders zero BAC . Drivers not listed elsewhere .05 BAC .	Drivers of vehicles over 15 tonnes GVM, taxis, buses, licensed chauffeured vehicles, vehicles carrying dangerous goods, zero BAC .
TAS	Unlicensed and learner drivers, provisional licence holders, persons convicted of causing death driving a motor vehicle, persons with 3 or more traffic convictions (at least 1 after 12 Dec 1991), zero BAC .	Drivers of: public vehicles including buses (more than 11 passengers) and taxis, vehicles exceeding 4.5 tonnes GVM, zero BAC .
VIC	Probationary drivers, drivers with Z condition on licence and motorcyclists on 260cc restriction zero BAC . Drivers not listed elsewhere .05 BAC .	Drivers of vehicles over 15 tonnes GVM, all taxi and bus drivers, and some emergency vehicle drivers zero BAC . Drivers not listed elsewhere .05 BAC .
WA	Learner drivers, probationary drivers, extraordinary licence holders, some drivers with drink-drive convictions .02 BAC . All other drivers .05 BAC .	Probationary drivers .02 BAC . Learner permit holders and all other drivers .05 BAC .

SEATBELT USE

RELEVANCE TO DRIVING TASK

The use of seatbelts is compulsory in Australia for drivers of all motor vehicles. This includes drivers of trucks and buses, but excludes taxi drivers in NSW and Queensland. It has been reported that unrestrained occupants are over three times more likely to be killed in the event of a crash than those who wear seatbelts.

The granting of an exemption from the use of seatbelts places an individual's safety at considerable risk. **There are really no medical conditions for which a person should be unable to wear a seatbelt.**

REQUESTS RELATING TO SEATBELT EXEMPTIONS

Individuals may request a medical certificate recommending or granting exemption (depending on the State or Territory); however, exemptions based upon most medical grounds are considered to be invalid. Health professionals are discouraged from providing letters to people stating that the use of a seatbelt is not required.

In conditions such as obesity, health professionals should advise the patient to have the seatbelt modified and an inertia seatbelt fitted. In conditions in which there are scars to the chest or abdomen (i.e. post surgery/injury), the patient should be advised about the use of padding to prevent any problems of seatbelt irritation.

It must be stressed that exemption due to any medical condition should be an extremely rare exception to the uniformity of a rule which enforces the legal obligation of a driver to wear a seatbelt if fit to drive.

MEDICAL CERTIFICATE REGARDING EXEMPTION

If a health professional recommends or grants (depending on State or Territory law) an exemption, he or she must accept responsibility for granting the exemption. **In order to comply with the requirements of the Driver licensing authority**, a certificate of exemption (or recommendation for exemption) should be issued in the following manner:

- The certificate must be dated and issued on the practitioner's letterhead.
- The certificate should state the name, address, sex and date of birth of the person for whom the exemption is requested.
- The certificate must state the reason for which the exemption is requested.
- **The date the exemption expires** must be clearly stated. It should not exceed 1 year from the date of issue of the certificate except for musculo-skeletal conditions or deformities of a permanent nature. The certificate may not be legally valid without this date.

- **Tasmania:** a special application form is required for exemption applications. Contact details are listed on page 74.
- **Northern Territory:** A medical recommendation that clearly indicates that these guidelines have been referred to in reaching the exemption recommendation. All such recommendations should be sent to the Registrar of Motor Vehicles. Contact details are on page 74.
- Inform the patient that the certificate must be carried when travelling in motor vehicles without using a seatbelt and must be shown to police and authorised officers when requested.
- **Keep a record of all exemptions granted or recommended and document reasons for exemption in case litigation occurs.**

MEDICAL EXEMPTIONS

The following table suggests guidelines for possible exemptions.

MEDICAL STANDARDS – SEATBELTS	
CONDITION	DRIVERS OF CARS AND LIGHT TRUCKS, MOTORCYCLE RIDERS
Ileostomies and Colostomies	No exemption. In normal circumstances, a properly worn seatbelt should not interfere with external devices. An occupational therapist can advise on seatbelt adjustments in other cases.
Musculo-Skeletal Conditions and Deformities	Exemption possible for passengers only, depending on the exact nature of the condition.
Obesity	Advise modification of restraint. If not feasible, exemption possible.
Pacemakers	No exemption. If the pacemaker receives a direct compression force from a seatbelt, advise device be checked for malfunction.
Physical Disability	No exemption. Advise patient about correct fitting.
Pregnancy	No exemption. Advise patient about correct fitting.
Psychological Conditions	No exemption. Claustrophobia from seatbelt use can be overcome; if condition severe refer patient to a specialist.
Scars and Wounds	No exemption. Advise patient about the use of protective padding.

HELMET USE

RELEVANCE TO DRIVING TASK

There is a large body of research that demonstrates the effectiveness of helmets in reducing death and injury to motorcyclists. Research studies have been conducted in countries where helmet use is voluntary, comparing crash experience of users with non users. The significant benefits of motorcycle helmets have also been measured in countries which change from voluntary helmet use to compulsory.

Helmets are also beneficial for bicyclists as recent studies have shown. A very comprehensive report on bike helmets is Michael Henderson (1995), The Effectiveness of Bicycle Helmets – A Review, MAA of NSW [available on Internet from www.bhsi.org:80/webdocs/henderson.htm]. 'The introduction of the law has been accompanied by an immediate large reduction in the number of bicyclists with head injuries.' (Finch et al, 1993).

REQUESTS FOR HELMET EXEMPTIONS

Wearing of helmets by motorcyclists in Australia is compulsory. Legislation does not allow for exemptions in New South Wales, Victoria, South Australia, Queensland and the ACT. In the Northern Territory, legislation does not permit exemption on medical grounds. Exemptions are possible in other States only under extremely rare conditions and should be strongly discouraged. Health professionals are urged to point out to patients the risk of severe disability or death compared with the relatively small advantages of an exemption from wearing a motorcycle helmet.

Wearing of helmets by bicyclists in Australia is also compulsory. **In those States or Territories where exemptions are possible**, applications should be strongly discouraged in view of the greater risk of injury and death.

Australian Driver licensing authorities are moving towards a policy position in which no exemptions from the requirement to wear a helmet when riding a motorcycle or bicycle will be permitted in any State or Territory for any reason. The current situation is shown in the following table.

STATE AND TERRITORY LAWS ON EXEMPTIONS FROM WEARING BICYCLE OR MOTORCYCLE HELMETS (as at December 2000)		
STATE or TERRITORY	MOTORCYCLE HELMETS	BICYCLE HELMETS
ACT	No exemptions.	No exemptions.
NSW	No exemptions.	No exemptions.
NT	No medical exemptions.	Bicycle helmets are not necessary for persons who have attained the age of 17 years of age and who ride on a public place, on a bicycle way (if separated from the roadway by a barrier) or in an area declared exempt by the Minister.
QLD	No exemptions.	A person is exempt from wearing a bicycle helmet if the person is carrying a current doctor's certificate stating that, for a stated period – (a) the person cannot wear a bicycle helmet for medical reasons; or (b) because of a physical characteristic of the person, it would be unreasonable to require the person to wear a bicycle helmet.
SA	No exemptions.	Exemptions for Sikh religion only.
TAS	Exemption possible on medical grounds at discretion of Registrar of Motor Vehicles	Exemption possible on medical grounds and at discretion of Registrar of Motor Vehicles.
VIC	No exemptions.	Exemptions possible in cases of extreme hardship or on medical grounds.
WA	Medical exemption possible on GP certificate and evaluation by occupational health physician	Exemption on medical or religious grounds. Certificate from police medical referee required.
RIDING BICYCLES ON FOOTPATHS [VICTORIA ONLY]		
VIC Only	May ride bicycle on footpath if carrying a letter of exemption from a legally qualified medical practitioner stating that it is undesirable, impractical or inexpedient for the rider to ride on a road because of physical or intellectual disability.	Letter must be on medical practitioner letterhead and show date of issue and date of expiry. Letter must specify that rider has been advised of requirement to give way to pedestrians at all times when riding on footpaths. Letter should specify footpaths to be used, avoiding, where practicable, footpaths in areas where pedestrian traffic is heavy.

STANDARD LICENCE CONDITIONS

Where a health professional believes that a patient should have a condition on his or her licence, any of the following standard licence conditions should be recommended, unless there are pressing reasons to vary the condition.

VEHICLE MODIFICATION/RESTRICTION	EXAMPLE OF DISABILITY
Automatic transmission	Left leg disability
Built up seat and pedals	Short stature
External mirrors fitted on both sides	Loss of vision in one eye
Hand operated controls must be fitted	Loss of leg function
Left foot accelerator must be fitted	Loss of right leg function
Power brakes only	Reduced lower limb strength
Power steering only	Reduced upper limb strength
Spinner knob must be fitted	Reduced upper limb strength or in association with hand controls
PERSONAL RESTRICTIONS	EXAMPLE OF DISABILITY
Built up shoes to be worn	Short leg/s
Eye patch must be worn	Diplopia
Hearing aid must be worn and operating	Hearing deficiency
Medical report to be provided – must state time period	Need for ongoing review
Must wear prescribed corrective lenses	Eye sight deficiency
Optometric/ophthalmological report to be provided – must state time period	Eye sight deficiency
Prosthesis required	Loss of limb function
Review by driving assessor to be provided – must state time period	Degenerative diseases
Required to have taken medication regularly as prescribed.	Diabetes / epilepsy
Zero blood alcohol	With certain medication
DRIVING RESTRICTIONS	EXAMPLE OF DISABILITY
Driving in daylight hours	Night blindness
Driving off-peak only	Age-associated deteriorations, e.g, attention
Not to drive when temperature more than 25°C unless vehicle air conditioned	Multiple sclerosis
Only to drive within 5, 10, 15 or 20 km radius of place of residence.	Age associated deteriorations
To drive no more than ___ hours in any 24 hour period – state how many hours	Fatigue

DRIVER LICENSING CONTACTS

STATE OR TERRITORY	DRIVER LICENSING AUTHORITY CONTACTS FOR HEALTH PROFESSIONAL MATTERS	
ACT	Manager – Licensing Registration Dept of Urban Services P.O. Box 582 Dickson ACT 2602	Phone (02) 6207 7122
NSW	Manager - Medical Unit RTA Driver and Vehicle Administration Section Locked Bag 14 Grafton NSW 2460	Phone (02) 6640 2883
NT	Manager Customer Services Dept of Transport and Works GPO Box 530 Darwin NT 0801	Phone (08) 8999 3122 Fax (08) 8999 3189 Email mvr@nt.gov.au
QLD	Executive Director Land Transport Safety Division P.O. Box 673 Fortitude Valley Qld 4006	Phone (07) 3253 4132
SA	Office Manager - Licence Services Dept of Transport 60 Wakefield Street Adelaide SA 5000	Phone (08) 8226 7433
TAS	Manager - Driver Licensing Department of Infrastructure Energy & Resources 1 Collins Street Hobart Tas 7001	Phone (03) 6233 5389
VIC	Medical Review VicRoads Registration and Licensing 60 Denmark Street Kew Vic 3101	Phone (03) 9854 2666
WA	Supervisor Driver Assessment Section Department of Transport 441 Murray Street Perth WA 6000	Phone (08) 9320 9392
NATIONAL Commercial Vehicles Only	National Road Transport Commission PO Box 13105 LAW COURTS Vic 8010	Phone (03) 9321 8444

CONTACTS FOR OCCUPATIONAL THERAPIST SPECIALIST DRIVING ASSESSORS		
REGION	ORGANISATION	CONTACT PHONE
Australian Capital Territory	Driver Rehabilitation Program (Hospital)	(02) 6244 2937
New South Wales	Australian Association of OT – NSW	(02) 9808 1822
Northern Territory	Australian Association of OT – NT	(08) 8945 0044
Queensland	Australian Association of OT – Qld	(07) 3397 6744
South Australia	Driver Assessment Rehabilitation	(08) 8302 2308
Tasmania	Australian Association of OT – Tas	(03) 6331 9791
Victoria	VicRoads Medical Review	(03) 9854 2407
Western Australia	Curtin University Driver Assessment Consultancy	(08) 9266 3605
New Zealand	NZ Disability Resource Centre*	0800 17 1981

* Has a national listing of occupational therapists qualified in driver assessment.

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INFORMATION RETRIEVAL

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Keywords:

Driver, driving, medical, private, license, standards, road safety, Australia, car, motorcycle, light truck.

Abstract:

Driving a motor vehicle is a complex task involving perception, good judgement, adequate response time and reasonable physical capability. A range of medical conditions as well as certain treatments, may impair any of these factors.

These guidelines and standards are intended to provide a primary source of criteria for State and Territory driver licensing authorities and medical and other health professionals in assessing fitness to drive. They have been developed by Austroads through extensive consultation with all key stakeholders.

This, the second edition of Austroads fitness to drive guidelines, represents the latest set of national uniform guidelines for assessing the fitness to drive of private vehicle drivers of motor cars, motorcycles and rigid trucks up to 8 tonnes gross vehicle mass.

This publication replaces the first edition published in August 1998.

AUSTROADS PUBLICATIONS

Austrroads publishes a large number of guides and reports. Some of its Road Safety publications are:

AP-30/94	Road Safety Audit
AP-41/96	Bitumen Sealing Safety Guide
AP-118/96	Urban Speed Management in Australia
AP-120/95	National Guidelines for Alcohol Ignition Interlock Programs for Drink Driving Offenders
AP-121/95	Novice Car Driver Competency Specification
AP-126/97	A Minimum Common Dataset for Reporting of Crashes on Australian Roads
AP-128/98	Alcohol-Impaired Pedestrian Crashes
AP-132/98	National Guidelines for Evaluation of Alcohol Ignition Interlock Programs
AP-134/99	The Implications of Intelligent Transport Systems for Road Safety
AP-140/99	Investigation of Learner Driver Experience Under Three Driver Licensing Systems in Australia
AP-141/99	Seat Belts for Truck Drivers
AP-143/00	Speed and Accidents – Use of In-vehicle data recorders
AP-148/00	Heavy Vehicle Driver Health and Sleep Disorders
AP-R155/00	Pedestrian and Cyclist Safety – Recent Developments
AP-R156/00	Pedestrian and Cyclist Safety – Pedestrian Crashes at Pedestrian Facilities
AP-R157/00	Pedestrian and Cyclist Safety – Investigation of Accidents in Different Road Environments
AP-R158/00	Pedestrian and Cyclist Safety – Comparison of Accidents in New South Wales, Victoria and Queensland Pedestrian and Cyclist Safety (complete set of four reports)
AP-R159/00	Youth Road Safety
AP-R169/00	Road Safety Environment and Design for Older Drivers
AP-R161/00	50km/h Speed Limit on Local Street – Community opinions and anticipated effects
AP-R162/00	Relationship between Crash Risk and Geometric Characteristics of Rural Highways
AP-R176/00	Model Licence Re-assessment Procedure for Older and Disabled Drivers
AP-R181/01	Optimisation of Rural Drink Driving and Enforcement Program
AP-R182/01	Safety Improvements in Prescribed Driving Hours

These and other Austrroads publications may be obtained from:

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