

Determining Driver Fitness in Canada:

Part 1: A Model for the Administration of Driver Fitness Programs

and

Part 2: CCMTA Medical Standards for Drivers

Version: Draft 8

Foreword

The Administration of Driver Fitness Programs and the CCMTA Medical Standards for Drivers are intended to enhance the understanding of medical conditions that affect safe driving and aid provincial and territorial governments in their role in assessing driving privileges.

Part 2 of this document the new *Canadian Council of Motor Transport Administrators (CCMTA) Medical Standards for Drivers* replaces the publication of the same name, last published in xxxx, 2011.

While this document is a departure from how the CCMTA has traditionally articulated driver fitness standards, it reflects the continued collaboration over the past 25 years between the provinces and territories of Canada to create national standards for driver fitness.

These materials are the result of a lengthy and intensive process, begun in 2006 and concluded in 2011 and reflect CCMTA's commitment to:

- anchor its medical standards on the best-evidence available
- focus on functional ability to drive rather than medical diagnosis, and to
- respond to case law establishing that Canadian authorities must individually assess drivers.

These guidelines and standards reflect Canadian jurisdictions' continuing commitment to public safety while allowing the maximum driving privilege possible.

Acknowledgements and thanks

The production of this document was a result of a collaboration of all of the provinces and territories and many individuals from these jurisdictions with various expertises contributed to the final product.

However, CCMTA would also like to specifically thank the province of British Columbia which provided expertise and also the basic template for the production of a national model on determining driver fitness in Canada.

Version history

Document Information and Revision History			
Project	Revising the CCMTA Medical Standards for Drivers		
Title	Determining Driver Fitness in Canada: Part 1: Administration of Driver Fitness Programs and Part 2: CCMTA Medical Standards for Drivers		
Version			
Status	Draft 6		
HISTORY			
	<i>Date</i>	<i>Changes made by:</i>	<i>Description of Change</i>
Draft 1	November 2 2009	Prepared by Gordium Associates	N/A
Draft 2	December 18 2009	Input from the Working Group of the Driver Fitness Overview Group Changes prepared by Gordium Associates	N/A
Draft 3	February 23 2010	Input from the Working Group of the Driver Fitness Overview Group Changes prepared by Gordium Associates	N/A
Draft 4	July 26 2010	Suggested revisions for discussion at DFOG meeting scheduled for September 2010, M Fuhr	
Draft 5	September 2010	CCMTA Secretariat	Examples for CCMTA Board approval of concept Dec 2010
Draft 6	April 2011	CCMTA Secretariat	Part 1 update for DFOG, D&V review
Draft 7	Aug 2011	CCMTA Secretariat, input from DFOG	Part 1 approved by D&V May 2011, updated with hearing standard additions Aug 2011
Draft 8	Jan 2012	CCMTA Secretariat, input from DFOG physicians	Addition of Part 2 after physicians review Sept 2011

Table of contents

BACKGROUND	10
Chapter 1: Introduction	11
1.1 Purpose of the model for driver fitness program administration (Part 1)	11
1.2 Purpose of the CCMTA Medical Standards for Drivers (Part 2).....	11
1.3 How this document is organized.....	11
Chapter 2: The authority for the CCMTA standards	13
2.1 Canadian Council of Motor Transport Administrators.....	13
2.2 The mandate of the CCMTA Driver Fitness Overview Group (DFOG)	14
2.3 The relationship between individual Canadian jurisdictions' driver fitness policies and the CCMTA standards.....	15
2.4 The relationship between Canadian jurisdictions' driver fitness standards for commercial drivers, the CCMTA standards and the North American Free Trade Agreement.....	16
Chapter 3: Roles and responsibilities in driver fitness	18
3.1 Government driver fitness authorities.....	18
3.2 Medical practitioners	18
3.3 Allied health care practitioners	18
Chapter 4: A changing approach to determining driver fitness	19
Chapter 5: Guiding principles	20
5.1 Principle 1 - Risk management	20
5.2 Principle 2 - Functional approach	21
5.3 Principle 3 - Individual assessment.....	21
5.4 Principle 4 – Reviewing and considering the best information available.....	22
PART 1: A MODEL FOR THE ADMINISTRATION	23
OF	23
DRIVER FITNESS PROGRAMS	23
Chapter 1: Introduction	24
Chapter 2: Definitions	26
Chapter 3: Key concepts	29
3.1 Functions needed for driving	29
3.2 Functional ability and driving outcomes.....	34
3.3 Types of impairments	34
3.4 Important considerations when determining fitness	36
Chapter 4: Identifying drivers who may not be fit to drive	38
4.1 Overview.....	38
4.2 All Drivers	39
4.3 Non-commercial Drivers (Class 5, 6, 7).....	39
4.4 Commercial Drivers.....	41
4.5 Cancelling or restricting a licence because of an immediate public safety risk	42
Chapter 5: Assessing fitness to drive	43
5.1 Overview.....	43

5.2	Requesting functional assessments	45
5.3	Requesting medical assessments.....	45
5.4	Assessing the cognitive functions needed for driving	46
5.5	Assessing motor function.....	48
5.6	Assessing sensory function – vision	49
5.7	Assessing sensory function – hearing.....	50
5.8	Assessing drivers with multiple functional impairments.....	51
5.9	Assessing drivers with multiple medical conditions.....	51
5.10	Time period during which assessments are valid	52
5.11	Time limits for drivers to complete assessments	53
Chapter 6: Making a driver fitness determination		55
6.1	Overview.....	55
6.2	Sources of information for making a driver fitness determination	57
6.3	Considering persistent impairments.....	58
6.4	Considering episodic impairments.....	58
6.5	Considering cognitive impairment.....	59
6.6	Considering motor impairment.....	59
6.7	Considering sensory impairment – vision.....	60
6.8	Considering sensory impairment – hearing	61
6.9	Considering imposing conditions	61
6.10	Considering specific requirements for commercial drivers	62
6.11	Considering whether the driver can compensate	63
6.12	Considering insight	64
6.13	Considering compliance with existing treatment regime.....	65
6.14	Considering compliance with existing conditions of licence	65
6.15	Considering the driving record	66
Chapter 7: Reassessment.....		67
7.1	Routine reassessment intervals – commercial drivers	69
7.2	Routine reassessment intervals – non-commercial drivers.....	69
7.3	Determining whether reassessment is required (other than routine)	69
7.4	Setting the reassessment interval	71
PART 2: CCMTA		73
MEDICAL STANDARDS FOR DRIVERS		73
Chapter 1: Introduction		74
1.1	Purpose of this part	74
1.2	Source of the medical condition chapters	74
1.3	Source of the driver fitness guidelines for assessment	75
1.4	75	
1.5	Medical condition chapter template.....	75
Chapter 2: Medical conditions at-a-glance		78
Chapter 3: Cardiovascular disease and disorders		79
3.1	About cardiovascular disease.....	79
3.2	Prevalence	81
3.3	Cardiovascular disease and adverse driving outcomes.....	81
3.4	Effect of cardiovascular disease on functional ability to drive.....	82
3.5	Compensation	83

3.6	Guidelines for assessment.....	84
Chapter 4:	Cerebrovascular disease	135
4.1	About cerebrovascular disease.....	135
4.2	Prevalence	136
4.3	Cerebrovascular disease and adverse driving outcomes	137
4.4	Effect on functional ability to drive	138
4.5	Compensation	139
4.6	Guidelines for assessment.....	140
Chapter 5:	Chronic renal disease	144
5.1	About chronic renal disease	144
5.2	Prevalence	144
5.3	Chronic renal disease and adverse driving outcomes	144
5.4	Effect on functional ability to drive	145
5.5	Compensation	146
5.6	Standards.....	146
Chapter 6:	Cognitive impairment including dementia.....	151
6.1	About cognitive impairment and dementia.....	151
6.2	Prevalence	154
6.3	Cognitive impairment, dementia and adverse driving outcomes	155
6.4	Effect on functional ability to drive	156
6.5	Compensation	156
6.6	Guidelines for assessment.....	157
Chapter 7:	Diabetes - Hypoglycemia.....	158
7.1	About diabetes and hypoglycemia.....	158
7.2	Prevalence	159
7.3	Diabetes and adverse driving outcomes.....	161
7.4	Effect on functional ability to drive	161
7.5	Compensation	162
7.6	Guidelines for assessment.....	163
Chapter 8:	General debility and lack of stamina	175
8.1	About general debility and lack of stamina	175
8.2	Prevalence	175
8.3	General debility, lack of stamina and adverse driving outcomes	176
8.4	Effect on functional ability to drive	176
8.5	Compensation	176
8.6	Guidelines for assessment.....	177
Chapter 9:	Hearing loss	178
9.1	About hearing loss	178
9.2	Prevalence	178
9.3	Hearing loss and adverse driving outcomes.....	178
9.4	Effect on functional ability to drive	179
9.5	Compensation	179
9.6	Guidelines for assessment.....	179
Chapter 10:	Intracranial tumours.....	182
10.1	About intracranial tumours	182
10.2	Prevalence	182

10.3	Intracranial tumours and adverse driving outcomes	182
10.4	Effect on functional ability to drive	183
10.5	Compensation	183
10.6	Guidelines for assessment.....	184
Chapter 11:	Musculoskeletal conditions	185
11.1	About musculoskeletal conditions	185
11.2	Prevalence	185
11.3	Musculoskeletal conditions and adverse driving outcomes.....	185
11.4	Effect on functional ability to drive	186
11.5	Compensation	187
11.6	Guidelines for assessment.....	188
Chapter 12:	Neurological disorders	190
12.1	About neurological disorders.....	190
12.2	Prevalence	192
12.3	Neurological disorders and adverse driving outcomes	192
12.4	Effect on functional ability to drive	193
12.5	Compensation	195
12.6	Guidelines for assessment.....	196
Chapter 13:	Peripheral vascular diseases	197
13.1	About peripheral vascular diseases.....	197
13.2	Prevalence	198
13.3	Peripheral vascular diseases and adverse driving outcomes.....	199
13.4	Effect on functional ability to drive	199
13.5	Compensation	200
13.6	Guidelines for assessment.....	201
Chapter 14:	Psychiatric disorders	206
14.1	About psychiatric disorders	206
14.2	Prevalence	210
14.3	Psychiatric disorders and adverse driving outcomes	211
14.4	Effect on functional ability to drive	213
14.5	Compensation	215
14.6	Guidelines for assessment.....	216
Chapter 15:	Psychotropic drugs	219
15.1	About psychotropic drugs.....	219
15.2	Prevalence	223
15.3	Psychotropic drugs and adverse driving outcomes.....	224
15.4	Effect on functional ability to drive	226
15.5	Compensation	229
15.6	Guidelines for assessment.....	230
Chapter 16:	Respiratory diseases	231
16.1	About respiratory diseases	231
16.2	Prevalence	232
16.3	Respiratory diseases and adverse driving outcomes.....	232
16.4	Effect on functional ability to drive	233
16.5	Compensation	233
16.6	Guideline for assessment	234

Chapter 17: Seizures and epilepsy	238
17.1 About seizures and epilepsy.....	238
17.2 Prevalence.....	241
17.3 Seizures, epilepsy and adverse driving outcomes.....	241
17.4 Effect on functional ability to drive.....	242
17.5 Compensation.....	242
17.6 Guideline for assessment.....	242
Chapter 18: Sleep disorders	254
18.1 About sleep disorders.....	254
18.2 Prevalence.....	257
18.3 Sleep disorders and adverse driving outcomes.....	257
18.4 Effect on functional ability to drive.....	257
18.5 Compensation.....	258
18.6 Guideline for assessment.....	258
Chapter 19: Syncope	263
19.1 About syncope.....	263
19.2 Prevalence.....	264
19.3 Syncope and adverse driving outcomes.....	264
19.4 Effect on functional ability to drive.....	264
19.5 Compensation.....	264
19.6 Guideline for assessment.....	265
Chapter 20: Traumatic brain injury	272
20.1 About traumatic brain injury.....	272
20.2 Prevalence.....	273
20.3 Traumatic brain injury and adverse driving outcomes.....	273
20.4 Effect on functional ability to drive.....	273
20.5 Compensation.....	274
20.6 Guidelines for assessment.....	275
Chapter 21: Vestibular disorders	276
21.1 About vestibular disorders.....	276
21.2 Prevalence.....	278
21.3 Vestibular disorders and adverse driving outcomes.....	278
21.4 Effect on functional ability to drive.....	279
21.5 Compensation.....	280
21.6 Guideline for assessment.....	281
Chapter 22: Vision impairment	286
22.1 About vision impairment.....	286
22.2 Prevalence.....	295
22.3 Vision impairments and adverse driving outcomes.....	298
22.4 Effect on functional ability to drive.....	300
22.5 Compensation.....	300
22.6 Guidelines for assessment.....	302
22.7 Standards for testing visual functions.....	309
PART 4: APPENDICES	312
Appendix 1: Canadian Driver Licence Classes	313
Appendix 2: Canada – US Reciprocity Agreement	317

BACKGROUND

Chapter 1: Introduction

1.1 Purpose of the model for driver fitness program administration (Part 1)

The purpose of the model for administering driver fitness programs is to provide guidelines to facilitate a consistent approach to driver fitness decision-making by provincial and territorial government driver fitness authorities across Canada.

1.2 Purpose of the CCMTA Medical Standards for Drivers (Part 2)

The purpose of the CCMTA Medical Standards for Drivers is to provide driver fitness authorities with research-based information and standards to support consistent driver fitness decisions within, and across, Canadian jurisdictions.

1.3 How this document is organized

This document consists of 4 parts: Background, Part I, Part II and Appendices.

Background, provides the necessary context for the standards outlined in Parts 1 and 2. The 5 chapters within this part are:

- *Chapter 1: Introduction*, which explains the purpose of the standards
- *Chapter 2: The authority for the CCMTA standards*, which provides an overview of the mandate of the CCMTA and the relationship between driver fitness policy in individual Canadian jurisdictions and the CCMTA standards
- *Chapter 3: Roles and responsibilities in driver fitness*, which reviews the roles of driver fitness authorities and medical practitioners
- *Chapter 4: A changing approach to determining driver fitness*, which reviews changes in the law as well as explains the ‘functional’ approach to driver fitness
- *Chapter 5: Guiding principles*, which reviews the 4 principles which are the foundation of the CCMTA standards

Part I, A Model for the Administration of Driver Fitness Programs, provides guidelines and a process model for driver fitness authorities to follow during the driver fitness determination process. The 7 chapters within this part are:

- *Chapter 1: Introduction*
- *Chapter 2: Definitions*, which defines terms used throughout the model
- *Chapter 3: Key concepts*, which explain the conceptual framework for the model
- *Chapter 4: Identifying drivers who may not be fit to drive*, lays out a model for commercial and non-commercial drivers as well as cancelling licences when there is an immediate public safety risk
- *Chapter 5: Assessing fitness to drive*, which provides model on when to request assessments and how to assess the different functions needed for driving
- *Chapter 6: Making a driver fitness determination*, outlines the different issues that must be considered by driver fitness authorities when they make a driver fitness determination
- *Chapter 7: Reassessment*, lays out a process for determining when a reassessment is required and setting the reassessment interval

Part 2: CCMTA Medical Standards for Drivers, contains the medical condition driver fitness assessment standards.

- *Chapter 1: Introduction* is an introduction that outlines the purpose and the format of the medical condition chapters
- *Chapter 2: Medical conditions at-a-glance* is a table of medical conditions that may be used as a quick reference to determine how each affects the functions necessary for driving.
- *Chapters 3 – 22* are the medical condition driver fitness standards

Appendices.

- *Appendix 1: Licence classes*, describes the vehicles that may be driven by commercial and non-commercial drivers
- *Appendix 2: Reciprocity Agreement between Canada and the United States* contains the letters between Canada and the US that outline the driver fitness expectations for Canadian commercial vehicle drivers that drive in the U.S.

Chapter 2: The authority for the CCMTA standards

2.1 Canadian Council of Motor Transport Administrators

The *Canadian Council of Motor Transport Administrators* is an organization comprising representatives of provincial, territorial and federal governments of Canada which, through the collective consultative process, makes decisions on administration and operational matters dealing with licensing, registration and control of motor vehicle transportation and highway safety. It also includes associate members from the private sector and other government departments whose expertise and opinions are sought in the development of strategies and programs. CCMTA receives its mandate from, and reports to, the Council of Ministers Responsible for Transportation and Highway Safety.

The executive of CCMTA is made up of a fifteen-member Board of Directors, each representing his/her government who to attend to the overall management of the organization. The Board is responsible for providing overall guidance and specific direction to the standing committees. It reports to the Councils of Ministers and Deputy Ministers through the President of CCMTA, who is also Chair of the Board.

Reporting to the CCMTA Board, the work of CCMTA is conducted by three permanent standing committees. The mandates of the standing committees are as follows:

- The *Standing Committee on Drivers and Vehicles (D&V)* is responsible for all matters relating to motor vehicle registration and control, light vehicle standards and inspections, and driver licensing and control.
- The *Standing Committee on Compliance and Regulatory Affairs (CRA)* is concerned with the compliance activities of programs related to commercial driver and vehicle requirements, transportation of dangerous goods and motor carrier operations in order to achieve standardized regulations and compliance programs in all jurisdictions.

- The *Standing Committee on Road Safety Research and Policies* (RSRP) is responsible for coordinating federal, provincial and territorial road safety efforts, making recommendations in support of road safety programs, and developing overall expertise and strategies to prevent road collisions and reduce their consequences.

CCMTA's Vision is to have the safest and most efficient movement of people and goods by road in the world. Its mission is to provide a national forum for development of public policy and programs for road safety and driver and vehicle licensing.

2.2 The mandate of the CCMTA Driver Fitness Overview Group (DFOG)

The Driver Fitness Overview Group reports to the *CCMTA Standing Committee on Drivers and Vehicles*. Members are expected to be a mix of various types of expertise on driver fitness and consist of administrators and medical professionals representing licensing authorities. Medical professionals can include physicians, occupational therapists and nurses.

The mandate of the CCMTA DFOG is to derive a set of driver fitness policies and for jurisdictional use that incorporate the best ideas and principles included in the currently available literature and maintain their currency through periodic review.

Specific responsibilities include:

- develop strategies for all driver fitness issues using a driver fitness model which is a functional approach to determines the impact on the functions of driving. -Recommend uniform medical standards to be used by administrators in assessing a person's medical fitness to operate a motor vehicle.
- maintain and manage the CCMTA Medical Standards document.
- act as liaison on behalf of CCMTA with other organizations (e.g.: Canadian Medical Association, U.S. Federal Highway Administration (FMCSA), medical specialty societies).
- act as a clearing house for all activities under its purview.
- identify areas of concern and direct activities accordingly.

2.3 The relationship between individual Canadian jurisdictions' driver fitness policies and the CCMTA standards

All Canadian provinces and territories have the authority to establish their own driver fitness policies and procedures. All have a medical review board or unit acting in an advisory capacity to the jurisdiction's licensing body (the Registrar) on medical matters that may affect a person's fitness to drive. However, in order to support a consistent approach to driver fitness across the country, the provinces and territories agreed to publish CCMTA Medical Standards for Drivers.

In 1985, medical standards for drivers were identified as part of the National Safety Code (NSC) initiative undertaken to achieve uniformity among the provinces and territories, on many aspects relating to the administration of drivers and vehicles. The rationale being that licence transfers upon a change of province of residence should not be complicated by divergent medical requirements. The classification of driver licences adopted by the provinces and territories as part of the NSC is shown in Appendix 1. A Medical Advisory Committee (MAC), comprised of physicians appointed by each jurisdiction, was created to identify and reconcile interprovincial medical standard variances and produce a harmonized standard. The basis for developing the harmonized medical standards was primarily publications from the Canadian Medical Association (CMA) and other medical speciality associations.

In 2000, CCMTA created a Driver Fitness Project Group to carry out a standards review, with attention to risk, compensation, accommodation, functional focus and whether and how to assess for each medical standard. This approach reflected recent trends relating to evidence based medicine rather than standards in determining an individual's fitness to drive.

In 2008, a Driver Fitness Overview Group in 2008 was formed to:

- (i) consolidate the work of the MAC and Driver Fitness to avoid duplicate work, duplicate reporting and record keeping and to house all medical related issues under the same umbrella, and
- (ii) produce one central CCMTA medical document.

The 2011 the Driver Fitness Overview Group developed new driver fitness standards in conjunction with subject matter experts including researchers,

general practitioners and medical specialists, and administrators from Canadian driver fitness authorities. The standards are intended as a guide in establishing basic medical qualifications to drive for both commercial and non-commercial drivers and are intended for use by both physicians and driver fitness authorities.

Although no jurisdiction in Canada is legally required to adopt the CCMTA standards, the majority are adopted by the driver fitness authorities. This achieves a uniformity of standards across Canada which supports both road safety and inter-provincial harmonization.

All medical standards, and subsequent changes, contained in Part 2 of this document are approved by all jurisdictions through a ballot process which requires a two thirds majority for approval.

2.4 The relationship between Canadian jurisdictions' driver fitness standards for commercial drivers, the CCMTA standards and the North American Free Trade Agreement

Under the North American Free Trade Agreement, the United States and Canada reached agreement on reciprocity of the medical fitness requirements for drivers of commercial motor vehicles (CMVs) effective March 30, 1999. The countries determined that the medical provisions of U.S. Federal Motor Carrier Safety Regulations (FMCSRs) and the Canadian National Safety Code (NSC) are equivalent (see Appendix 2).

There are three exceptions for Canadian drivers. Those who are (i) insulin-treated diabetics, (ii) hearing-impaired at a defined level, or (iii) have epilepsy are not permitted to operate CMVs in the United States. U.S. regulations prohibit individuals with those conditions from operating CMVs in the United States while they are allowed to drive commercial vehicles in Canada.

Also drivers from either country operating under a medical waiver or who are operating under medical *grandfather rights* are prohibited from operating in international commerce.

Because the reciprocal agreement between the United States and Canada identifies the CCMTA standards as the standard for commercial drivers, this means that regardless of individual provincial or territorial standards, **drivers of CMVs must meet or exceed the CCMTA standards if they drive in the United States.**

Commencing in January 2012, both countries agreed to adopt a unique identifier code to be displayed on the licence and the driving record to

identify a commercial driver who is not qualified or disqualified from operating a commercial vehicle in the other country.

In Canada, the identifier code will be “W”, and defined as: “restricted commercial class – Canada only”. In the United States, the identifier code “V” will indicate the U.S. driver is only allowed to drive in the U.S. and is not medically qualified to drive in Canada.

Chapter 3: Roles and responsibilities in driver fitness

All Canadian jurisdictions work in partnership with physicians, health care professionals and other agencies, to implement and administer driver fitness programs. The following paragraphs highlight examples of the roles and responsibilities of key participants in assessing and determining driver fitness.

3.1 Government driver fitness authorities

On a day-to-day basis, government driver fitness authorities make the final driver fitness decision as to whether a driver is fit to drive.

3.2 Medical practitioners

Medical practitioners play a key role in identifying and assessing drivers who may be unfit to drive. In some jurisdictions they have a legal duty to report certain medical conditions. In addition to this reporting duty, medical practitioners may also conduct assessments and provide information to the driver fitness authority regarding a driver's diagnosis, prognosis, treatment and extent of impairment. Sometimes medical practitioners are asked to comment directly on driving ability.

In some Canadian jurisdictions, during an appeal, or reconsideration, of a decision, medical specialists provide written or oral opinions when a driver asks for a review of the driver fitness decision.

3.3 Allied health care practitioners

Allied health care practitioners such as occupational therapists, driver rehabilitation therapists and physiotherapists may be asked to conduct assessments of drivers and comment on the driver's functional ability to drive. As well, in some jurisdictions, reports initiated by allied health professionals because of a driver fitness concern may be accepted and steps taken by the driver fitness authority.

Chapter 4: A changing approach to determining driver fitness

Traditionally CCMTA medical standards were based mostly on the diagnostic model. That is, the standards were based primarily on the medical condition and the presumed group characteristics of people with that condition rather than on how the medical condition affected the functions necessary for driving on an individual basis. In terms of an evidentiary basis, the standards reflected the consensus opinion of practicing physicians.

Three developments have had a significant impact on the procedure for the administration of driver fitness programs and the medical condition guidelines:

1. A Supreme Court of Canada decision established the requirement to individually assess drivers. The ‘*Grismer*’¹ case held that each driver must be assessed according to the driver’s own personal abilities rather than presumed group characteristics.
2. Nationally and internationally, driver fitness authorities are moving toward adopting a functional approach to driver fitness. This means assessing the impact of a medical condition on the functions necessary for driving. The functions necessary for driving are cognitive, motor, and sensory. These are described in detail in Chapter 5.
3. CCMTA has increased its emphasis on using research evidence, where it exists, as the basis of its driver fitness standards. Each medical condition in Part 2 is included because the best available evidence shows that the medical condition causes impairment of one or more of the functions necessary for driving, or has been associated with an elevated risk of crash or impaired driving performance. This information has been drawn from the integrative review performed by Dr. Bonnie Dobbs and documented in her report *Medical Conditions and Driving: Current Knowledge 2010*.

The four principles articulated on the following pages reflect the CCMTA’s changing approach to driver fitness and are the foundation of the new standards in Part 2.

¹ British Columbia (Superintendent of Motor Vehicles) v. British Columbia (Council of Human Rights), [1999] 3 S.C.R. 868

Chapter 5: Guiding principles

The driver fitness approach is guided by the following four principles. By following these principles, Canadian driver fitness authorities will ensure that drivers are given the maximum licensing privilege possible taking into account their medical condition, its impact on the functions necessary for driving, and the driver's ability to compensate for the condition. These principles are the foundation of the *Administration of Driver Fitness Programs* in Part 1 of this document.

5.1 Principle 1 - Risk management

Principle

Driver fitness authorities will administer their driver fitness programs using a risk management approach.

Discussion

Risk is often defined as a formula: that is, risk is the likelihood of an uncertain event multiplied by the consequence if the event were to take place. This means that a highly likely event with serious consequences is a greater risk than an unlikely event with minor consequences. Risk management is the process of identifying risks and taking action to minimize either the likelihood or consequence of an event.

In *Grismer*,² the Supreme Court of Canada indicated that people with some level of functional impairment may have a driver's licence because society can tolerate a degree of risk in order to permit a wide range of people to drive. Unfortunately, there are no reliable formulas to calculate risk as it relates to fitness to drive. The impact of a medical condition may be specific to an individual and the ability to compensate for the medical condition may also vary by individual. As well, because the driving environment is complex and continuously changing, it is difficult to determine exactly what level of impairment means a person is not fit to drive. Because of these limitations, driver fitness authorities cannot precisely calculate the risk presented by a driver with a particular medical condition. Despite the fact that this risk cannot be precisely calculated,

² British Columbia (Superintendent of Motor Vehicles) v. British Columbia (Council of Human Rights), [1999] 3 S.C.R. 868

driver fitness authorities can still use a risk management approach when conducting activities associated with their driver fitness programs.

5.2 Principle 2 - Functional approach

Principle

Driver fitness determinations will be based primarily on functional ability to drive, and other available relevant materials, but no longer solely on diagnosis.

Discussion

Although there are some exceptions to this general principle, a functional approach to determining driver fitness means that, when making driver fitness determinations, the focus is on the effect that a medical condition has on the functions necessary for driving rather than making a decision based solely on a diagnosis. This is because many medical conditions may result in a wide range of impairment – from mild to severe – and drivers may vary in their own ability to compensate for the impairment.

5.3 Principle 3 - Individual assessment

Principle

Driver fitness determinations will be based on the individual driver's characteristics and abilities rather than the presumed group characteristics and abilities of people with that medical condition.

Discussion

A Supreme Court of Canada decision has established the requirement to individually assess drivers. *Grismer* held that each driver must be assessed according to the driver's own personal abilities rather than presumed group characteristics.

The driver fitness standards outlined in Part 2 are, however, based on presumed group characteristics of individuals with each medical condition. However, consistent with the decision in *Grismer*, driver fitness authorities must make driver fitness determinations on an individual basis. This means that the standards are the starting point for decision-making but they may not apply to every individual. This is because, in some situations, individuals who would otherwise not be fit to drive have learned strategies, or utilize devices, to compensate for their

functional impairment. For example:

- a driver with limited peripheral vision may use the strategy of turning their neck to the left and right to ensure they have a full field of view, or
- a driver who is unable to use their lower limbs may have their vehicle modified for hand controls.

Conversely, an individual who on the face of the standard would be fit to drive, may be found unfit. For example:

- a driver with a visual defect that can be compensated for may lack insight into the impact that their medical condition has on their driving and therefore would be at risk of not compensating properly. Because of their lack of insight, this driver would not be fit to drive.

5.4 Principle 4 – Reviewing and considering the best information available

Principle

Driver fitness authorities will review and consider the best information available when making driver fitness determinations.

Discussion

For each driver, driver fitness authorities will gather the best information that is available and required to determine fitness. Depending upon the nature of the functional impairment, the best information may include results of specialized functional assessments that clearly indicate whether or not an individual is fit to drive, such as a cognitive road test that assesses impairment of cognitive ability as it relates to driving. For other impairments there may be no assessment tools available that can accurately measure the impact of a medical condition on the functions necessary for driving. For example, in the case of drivers with episodic impairments, driver fitness authorities have to rely on the results of medical assessments and informed opinion as the best information available for determining fitness to drive.

Driver fitness authorities will generally rely on the medical condition standards to make driver fitness determinations. However, because each individual is unique, authorities also review and consider other available and relevant information when making driver fitness determinations.

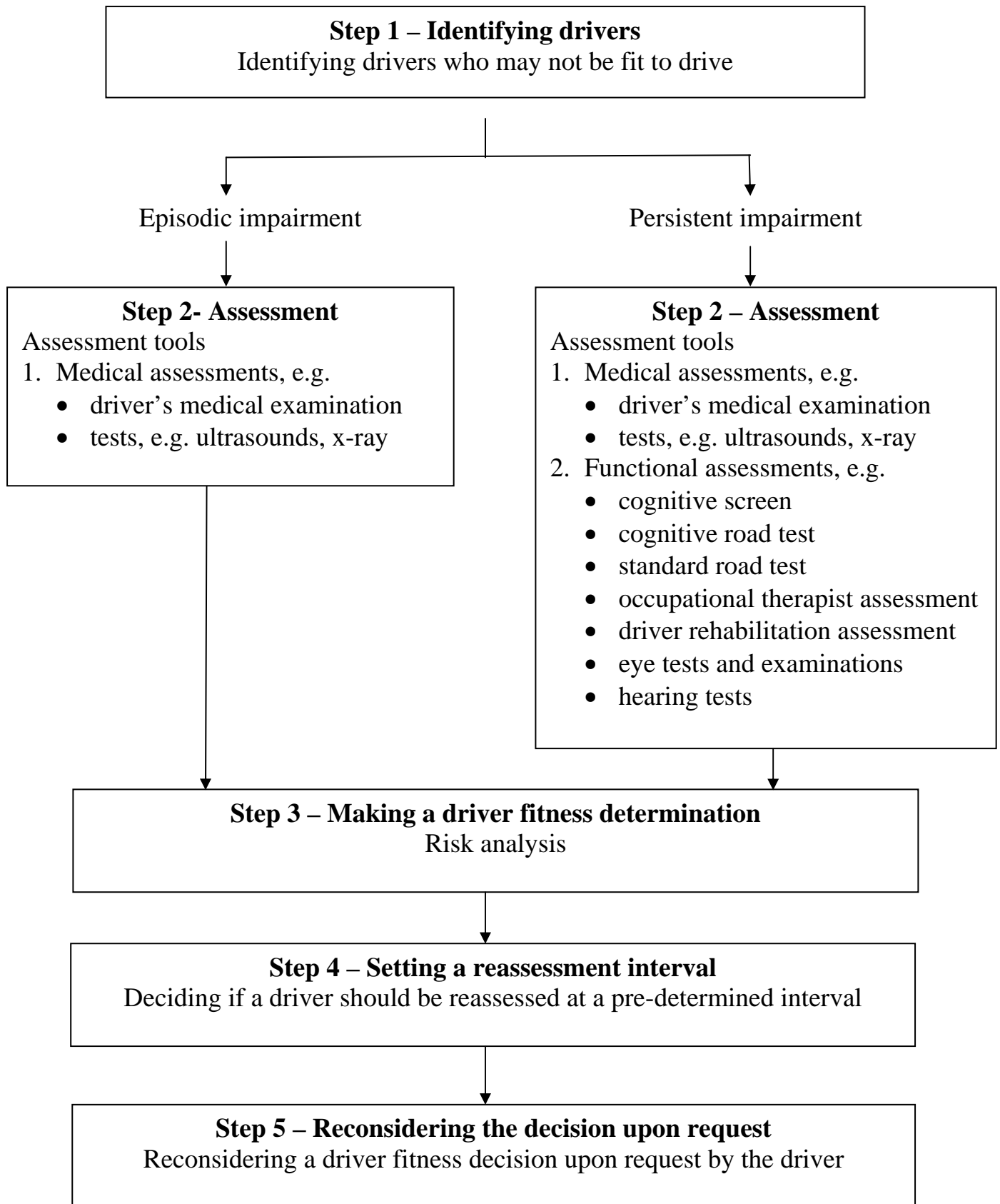
PART 1:

**A MODEL FOR THE
ADMINISTRATION
OF
DRIVER FITNESS
PROGRAMS**

Chapter 1: Introduction

Individual territorial and provincial driver fitness authorities will administer their driver fitness programs in a variety of ways. However, to support the consistent use of the medical condition standards, guidelines for the administration of driver fitness programs have been articulated for the use of provinces and territories. These guidelines have been organized under five key activities:

1. identifying drivers who may not be fit to drive
2. assessing drivers: assessment tools
3. making a decision regarding driver fitness: risk analysis
4. deciding if a driver should be reassessed at a pre-determined interval, and
5. reconsidering a driver fitness decision upon request by the driver.



Chapter 2: Definitions

Assessment	means using any kind of test or examination to gather information about a driver's functional ability to drive. Assessments may be either functional assessments or medical assessments (see definitions of these terms) and lead to a driver fitness determination.
Authority	See definition of 'Driver fitness authority'
Cognitive assessment	means a cognitive assessment that has been specifically designed to assess impairment of the cognitive functions needed for driving. A cognitive assessment may be conducted in-office or through a cognitive road test.
Cognitive road test	means a road test that has been specifically designed to assess impairment of the cognitive functions needed for driving.
Cognitive screen	means a cognitive screen that has been specifically designed to screen for impairment of the cognitive functions needed for driving. A cognitive screen is the first step in determining cognitive fitness to drive. Depending on the results of a cognitive screen, a cognitive assessment may be required.
Commercial driver	means a driver with a commercial class licence (Class 1-4) as determined by the licensing authority, or a driver deemed to be a commercial driver as determined by the licensing authority.
Condition	<p>means a term of licensing that is imposed on an individual or an individual's licence by the authority. The terms 'condition' and 'restriction' are used interchangeably in many Canadian jurisdictions. For the purposes of these guidelines, 'condition' includes the concept of 'restriction'.</p> <p>All authorities use conditions on a driver licence as part of their driver fitness program. These are generally enforceable at roadside:</p> <p style="padding-left: 40px;">example: 'wear corrective lenses'</p> <p>Some authorities also place conditions on the individual driver. These are not enforceable at roadside:</p>

example: ‘you must not drive if your dialysis treatment is delayed or circumstances do not allow you to maintain your dialysis schedule’

Credible report	means a report that provides objective information about a driver’s driving ability, e.g. information about observed driving infractions (running stop sign) or poor driving (failure to notice pedestrians; not staying in lane). A credible report may also be a report of damage to a driver’s car that a driver cannot explain. Credible reports may come from any source including health care professionals, the police, front-line licensing staff, family members or other concerned members of the public.
Driver	means any person with any class of valid, suspended or cancelled driver licence and a person applying for any class of driver’s licence
Driver fitness authority	means the body within each province or territory that makes driver fitness determinations. This may be abbreviated in the standards as the ‘authority’.
Driving record	includes: <ul style="list-style-type: none">• the length of time an individual has been licensed• driving offences• driving sanctions applied• current and past licence conditions• motor vehicle related Canadian Criminal Code convictions• crash history, and• past road test results.
Functional assessment	is any kind of assessment that involves direct observation or measurement of the functions necessary for driving. Functional assessments include: <ul style="list-style-type: none">• paper-pencil cognitive screen• computer-based cognitive assessments• cognitive road test• standard road test• occupational therapist assessment• driver rehabilitation assessment• eye tests and examinations, and• hearing tests

Medical assessment	is any kind of assessment that provides information regarding an individual’s medical condition and/or their response to, or compliance with, treatment. Medical assessments include: <ul style="list-style-type: none"> • driver fitness assessments completed by physicians including specialists • ultrasounds • blood tests, and • other medical tests that are not requested by authorities but are often submitted by physicians and provide useful information regarding an individual’s medical condition.
Medical condition	is any injury, illness, disease or disorder that is identified in Part 2 of this document or that may impair the functions necessary for driving. Impairment resulting from medications and/or treatment regimes that have been prescribed as treatment for a medical condition are considered as medical conditions. General debility and a lack of stamina are also considered as medical conditions that may impair the functions necessary for driving.
Non-commercial driver	means a driver with a non-commercial class licence (class 5 or 6) as determined by the driver fitness or licensing authority.
Incidence of a medical condition	means the annual number of new cases of a medical condition.
Prevalence of a medical condition	means the global occurrence of a medical condition.
Reassessment	is the process of re-assessing a driver, and making a new determination of fitness, for a driver with a previously reported medical condition. Reassessment is initiated by driver fitness authorities at the expiration of a scheduled reassessment interval or at any time in response to a credible report indicating that a driver may not be fit to drive.
Restriction	See definition of ‘Condition’
Standard road test	means a road test conducted by a government authorized driver-examiner. Standard road tests were traditionally designed for assessing driving skill, not driver fitness. They may be used, however, under certain circumstances to assess motor and sensory functional ability to drive..

Chapter 3: Key concepts

The following are explanations of the key concepts underlying these guidelines. An understanding of these concepts is necessary in order to use the guidelines effectively.

3.1 Functions needed for driving

The functions necessary for driving can be categorized as either cognitive, motor, or sensory (vision and hearing). Sensorimotor functions are a combination of sensory and motor functioning and are considered as a subset of motor functions. Sensorimotor functions are, for the most part, reflexive or automatic, e.g. the response to your hand being placed on a hot stove or the ability to sit upright.

Within each category, the functions that are most relevant to the driving task are described in the tables below. Although the functions necessary for driving are described individually, **driving is a complex perceptual-motor skill which usually takes place in a complex environment and which requires the functions to operate together.**

Cognitive functions needed for driving		
Function	Description	Example in the driving context
Divided attention	the ability to attend to two or more stimuli at the same time	attending to the roadway ahead while being able to identify stimuli in the periphery
Selective attention	the ability to selectively attend to one or more important stimuli while ignoring competing distractions	isolating the traffic light from among other environmental stimuli
Sustained attention (vigilance)	the capacity to maintain an attentional activity over a period of time	attending to the roadway ahead over an extended period of time
Short-term or passive memory	the temporary storage of information, or the brief retention of information, that is currently being processed in a person's mind	remembering roadway sign information such as that related to freeway exits or construction areas; signs related to caution ahead, etc.

Cognitive functions needed for driving

Function	Description	Example in the driving context
Working memory (the active component of short-term memory)	the ability to manipulate information with time constraints/taking in and updating information	processing environmental information related to the driving task on a busy freeway
Long term memory	memory for personal events (autobiographical memory) and general world knowledge (semantic memory)	knowing: <ul style="list-style-type: none"> • your way from home to the grocery store • the meaning of traffic signs, and • the rules of the road
Choice/complex reaction time	the time taken to respond differentially to two or more stimuli or events	responding when a cat darts onto the edge of the road at the same time a pedestrian steps onto the roadway
Tracking	the ability to visually follow a stimulus that is moving or sequentially appearing in different locations	visually following other cars on the road
Visuospatial abilities	processes dependent on vision such as the recognition of objects, the ability to mentally rotate objects and determinations of relationships between stimuli based on size or color	understanding where a tree and other objects are in relation to the car
Executive functioning (see also central executive functioning below)	those capabilities that enable an individual to successfully engage in independent, purposeful, and self-serving behaviours. Disturbances in executive functioning are characterized by disturbed attention, increased distractibility, deficits in self-awareness, and preservative behaviour.	

Cognitive functions needed for driving

Function	Description	Example in the driving context
Central executive functioning (see also executive functioning above)	<p>that part of working memory that is responsible for ‘supervising’ many cognitive processes including encoding (inputting information from the external world), storing information in memory, and retrieving information from memory.</p> <p>Central executive (CE) functioning includes abilities such as planning and organization, reasoning and problem solving, conceptual thought, and decision making. CE functioning is critical for the successful completion of tasks that involve planning or decision making and that are complex in nature</p>	making a left turn at an uncontrolled intersection.
Visual information processing	<p>the processing of visual information beyond the perceptual level (e.g. recognizing and identifying objects and decision making related to those objects).</p> <p>Visual information processing involves higher order cognitive processing. However, because of the visual component, references to visual information processing often are included within the visual domain.</p>	

Motor functions needed for driving (including sensorimotor)

Function	Description	Example in the driving context
Coordination	the ability to execute smooth, accurate, controlled movements	executing a left hand turn; shifting gears, etc.
Dexterity	readiness and grace in physical activity; especially skill and ease in using the hands	inserting keys into the ignition; operating vehicle controls, etc.
Gross motor abilities	gross range of motion and strength of the upper and lower extremities, grip strength, proprioception, and fine and gross motor coordination	
Range of motion	the degree of movement a joint has when it is extended, flexed, and rotated through all of its possible movements	Range of motion of the extremities (e.g. ankle extension and flexion) is needed to reach the gas pedal and brake and upper body range of motion (e.g. shoulder and elbow flexion) is necessary for turning the steering wheel. Range of motion of the head and neck is necessary for looking at the side and rear for vehicles and for identifying obstacles at the side of the road or cars approaching from a side street.
Strength	the amount of strength a muscle can produce	lowering the brake pedal
Flexibility	the ability to move joints and muscles through their full range of motion. Muscle strength and flexibility often go hand in hand.	getting in and out of the car, operating vehicle controls, fastening the seat belt
Reaction time	the amount of time taken to respond to a stimulus	depressing the brake pedal in response to a child running out on the roadway, swerving to avoid an animal on the road

Sensory functions needed for driving – Vision

Function	Description	Example in the driving context
Acuity	the spatial resolving ability of the visual system, e.g. the smallest size detail that a person can see	reading directional signs
Visual field	an individual's entire spatial area of vision when fixation is stable, i.e. the extent of the area that an individual can see with their eyes held in a fixated position	seeing cars approaching from the left or right
Contrast sensitivity	the ability to perceive differences between an object and its background, e.g. the ability to detect a gray object on a white background or to see a white object on a light gray background	seeing traffic lights or cars at night
Glare recovery	the process in which the eyes recover visual sensitivity following exposure to a source of glare	adapting to the reflection of the sun from a car dashboard or oncoming headlights when driving at night
Perception	the process of acquiring, interpreting, selecting, and organizing sensory information	

Sensory functions needed for driving – Hearing

Function	Description	Example in the driving context
Hearing	Ability to hear or communicate	The ability to hear or communicate is of paramount importance for the operation of certain commercial vehicles including a passenger bus, ambulance or other emergency vehicles

3.2 Functional ability and driving outcomes

Cognitive

Individuals with progressive or irreversible declines in cognitive function cannot compensate for a cognitive impairment.

Motor

Research on motor functions and driving indicates considerable variability in the association between the different motor functions and driving outcomes. Overall, the research suggests that a significant level of impairment in motor functions is needed before driving performance is affected to an unsafe level.

Sensory – vision

Results from studies investigating the relationship between visual abilities and driving performance are, for the most part, equivocal. It may be, as suggested for motor abilities, that a significant level of visual impairment is needed before driving performance is affected.

Sensory – hearing

The effect of impaired hearing on driving is difficult to define and most hearing-impaired drivers are conscious of their impairment and compensate by being more cautious and alert and by making more use of their mirrors than drivers with normal hearing.

However, the ability to hear or communicate is of paramount importance for the operation of certain commercial vehicles including a passenger bus, ambulance or other emergency vehicles

3.3 Types of impairments

The types of impairments described below are described as if they existed in isolation from each other. In practice, however, a person may have more than one type of impairment and, under some circumstances, an impairment that was initially identified as transient, may become persistent. As well, some conditions, in particular, mental illness, can be both persistent and episodic. That is, a driver may have a persistent mental illness but acute episodes only occur episodically. Finally,

episodic impairments, for example epilepsy, may result in sudden incapacitation when an event occurs.

Transient impairment

Transient impairments are a temporary impairment of the functional ability to drive where there is little or no likelihood of a recurring episodic, or ongoing persistent, impairment. Examples of transient impairments are:

- the after-effects of surgery, e.g. the time to recover from the anaesthetic and the surgery itself
- fractures and casts, post-orthopaedic surgery
- concussion
- conscious sedation (short-term)
- invasive medical tests
- injury
- use of orthopaedic braces (including neck), and
- infections.

Driver fitness programs do not need to know when a driver has experienced a transient impairment and do not assess drivers with transient impairments. In these cases, a doctor may rely on best practices to tell a patient, for example, “don’t drive for 6 weeks after your abdominal surgery.” The Canadian Medical Association (CMA) Guide for Physicians when Determining Fitness to Drive, 7th edition contains guidelines for physicians for many transient impairments associated with a range of medical conditions.

Persistent impairment

A persistent impairment is an ongoing or continuous impairment to a function necessary for driving. The potential impacts of persistent impairments on the functions necessary for driving are generally **measurable, testable** and **observable**. Although the condition may be progressive, the progression is usually slow and sudden deterioration is unlikely. Persistent impairments may be stable, e.g. loss of leg, or progressive, e.g. arthritis.

Episodic impairment

An episodic impairment is the result of a medical condition that does not have any ongoing measurable, testable or observable impact on the

functional ability to drive but that may result in an unpredictable sudden or episodic impairment of the functions needed for driving.

For example, the medical condition that gives rise to the impairment may be testable, e.g. the size of an abdominal aortic aneurysm, or known, e.g. epilepsy, but the precipitating event that negatively impacts the functional ability to drive, e.g. the rupture of the aneurysm or an epileptic seizure, is not predictable. The source of the potential impairment is known and the inevitability of functional impairment is known in the event that the episodic impairment occurs, but when it will occur is not known.

Sudden incapacitation

Sudden incapacitation means the sudden loss of the functions necessary for driving. It may be the result of a total or partial loss of consciousness, narcolepsy, overwhelming pain, seizures or other episodic event.

3.4 Important considerations when determining fitness

Insight

Insight means that a driver:

- is aware of their medical condition
- understands how the condition may impair their functional ability to drive, and
- has the judgment and willingness to comply with their treatment regime and any conditions of licensing.

Physicians will often use terms such as “impaired awareness,” “decreased metacognition,” or “lack of awareness regarding deficits” on a medical assessment to indicate that an individual lacks insight.

An individual’s level of insight is a critical consideration when assessing the risk of an episodic impairment of functional ability due to a psychiatric disorder. Because of this, there is a specific guideline regarding insight in the Psychiatric Disorders standard.

Compensation

Persistent impairments

Compensation is the use of strategies or devices by a driver with a persistent impairment to compensate for the functional impairment caused by a medical condition. Treatment for a condition, e.g. medication, is not a type of compensation. Where available or known, possible

compensation strategies for each medical condition are included in the driver fitness standards in Part 3 of this document.

Whether an individual can compensate for a persistent impairment depends upon the function that is impaired. Individuals with impairments in motor function, vision or hearing may be able to compensate for those impairments. Individuals with progressive or irreversible declines in cognitive function cannot compensate for a cognitive impairment.

Episodic impairments

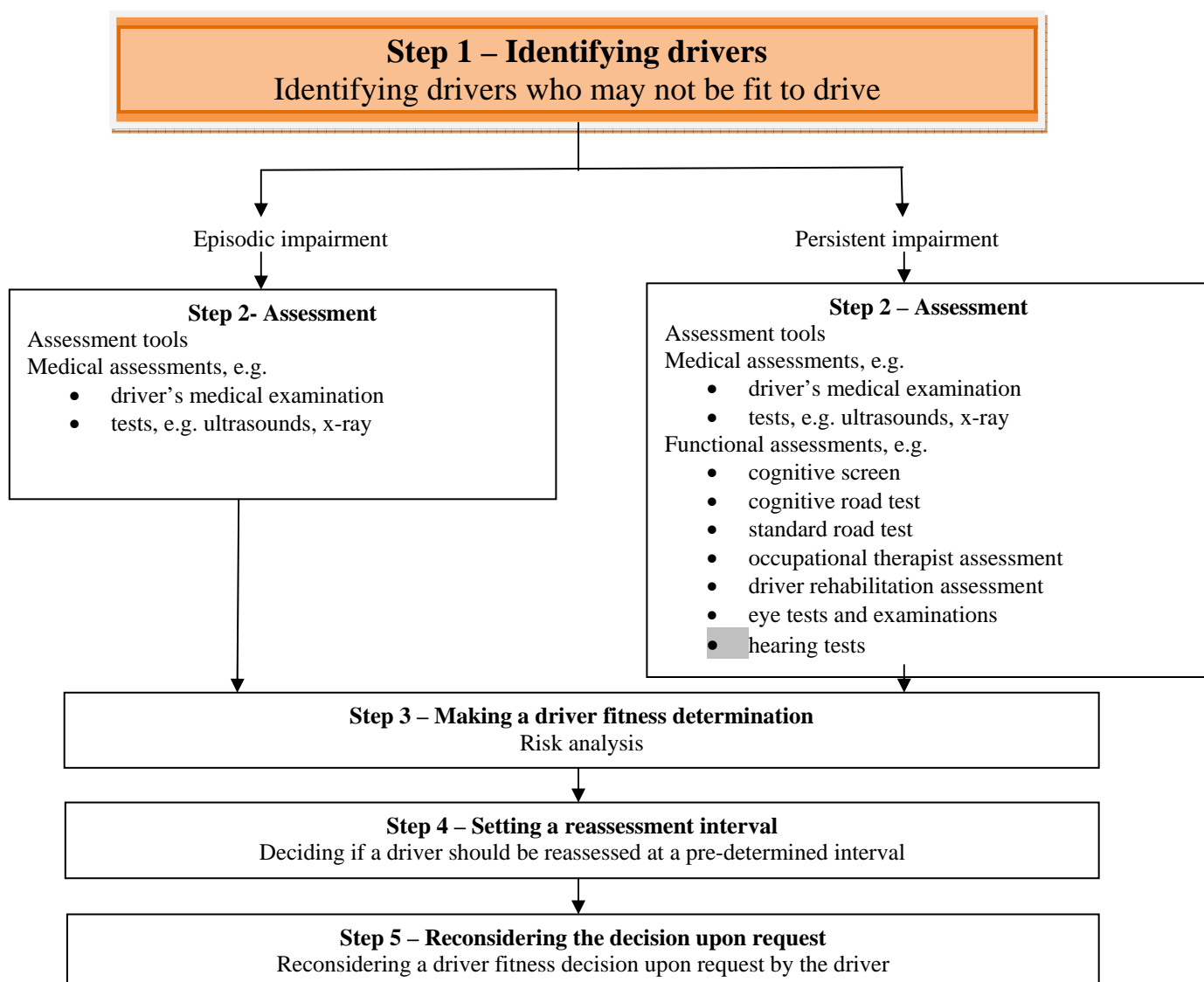
An individual cannot compensate for an episodic impairment.

Chapter 4: Identifying drivers who may not be fit to drive

4.1 Overview

Identifying drivers who may not be fit to drive, and who therefore pose a risk to public safety, is a key function of driver fitness authorities.

The driver fitness medical condition standards in *Part 2: CCMTA Medical Standards for Drivers* of this document support authorities by identifying the most common medical conditions that are of concern. This model does not include transient impairments because transient impairments are a temporary impairment of the functional ability to drive where there is little or no likelihood of a recurring episodic, or ongoing persistent, impairment.



4.2 All Drivers

Model Standard

- 4.2.1 Provincial and Territorial driver fitness authorities put in place mechanisms to identify individuals whose functional ability to drive may be impaired by a medical condition that may affect driving.

Rationale

All Canadian jurisdictions have the legal authority to examine a driver's fitness and ability to drive. Authorities are specifically concerned with individuals whose fitness and ability to drive may be impaired by medical conditions. This includes individuals who may be impaired by medications or treatment regimes prescribed as treatment for a medical condition, general debility or a lack of stamina.

4.3 Non-commercial Drivers (Class 5, 6, 7)

Model Standard

- 4.3.1 Authorities will routinely identify non-commercial drivers for a review of driver fitness, for example:
- (a) at age 75
 - (b) at age 80
 - (c) every 2 years over age 80

Rationale

The functional declines associated with aging are well documented. These functional declines in healthy aging drivers are unlikely to lead to unsafe declines in driving performance, except in the case of extreme old age. However, aging is also associated with increased risk for a broad range of medical conditions, such as visual impairments, musculoskeletal disorders, cardiovascular disease, diabetes, and cognitive impairment and dementia. These medical conditions and medications used to treat them may affect fitness to drive.

Although there are many age-associated medical conditions that may affect driving, there is a particularly strong association between cognitive impairment and dementia and impaired driving performance. A large, national population-based study done in Canada in 1991 showed that 25%

of the population 65 and older have some form of cognitive impairment or dementia, rising to 70% for those 85 and older.

Because of the association between age and many chronic medical conditions, aging drivers are more likely to have one or more of these conditions. A 2003 survey found that 33% of Canadian s age 65 and older had 3 or more chronic medical conditions. The survey also found that the average number of chronic conditions increases with age.

With an increased rate of multiple medical conditions, there is also a greater likelihood that aging drivers will be taking multiple medications. With each additional medication taken, there is an increased risk of side effects and adverse interactions between medications, which may affect fitness to drive. While in many cases the adverse effects may be temporary or avoidable, where specific medications or dosages are required there may be a persistent impairment of the functions needed for driving.

As a group, older drivers are less likely to be involved in a crash than other age groups. However, the reason for this is that older drivers spend less time driving than others. When driving exposure is considered, older drivers show an increased crash risk, an increased risk for at-fault crash, and an increased risk of being injured and dying in a crash.

Statistics from British Columbia show that at about age 70, the ratio of at-fault crashes begins to rise, climbing to 2.5 for drivers who are 81 and older.

An examination of driver fatality rates, adjusted for driving exposure, indicates that there are two high risk age groups: ages 16 to 19 and 65 and older. Older drivers are also more likely to be injured in a crash and to incur more severe injuries than younger drivers.

Unlike younger driver crashes, most traffic fatalities involving older drivers occur during the day time, on week-days, and in safe road conditions, with the majority of the crashes involving another vehicle.

4.4 Commercial Drivers

Model Standard

- 4.4.1 Authorities are mandated under Canada's the National Safety Code to evaluate commercial drivers for driver fitness at the time of licence application and then at periodic intervals, for example:
- (a) up to age 45, every 5 years thereafter
 - (b) from age 45 to age 65, every 3 years thereafter, and
 - (c) from age 65, annually.

Rationale

The rationale under 'non-commercial drivers', in Section 4.3.1 also applies to commercial drivers. In addition, commercial drivers drive a variety of vehicles including large trucks and passenger carrying vehicles such as buses. Professional drivers who operate passenger carrying vehicles, trucks and emergency vehicles spend many more hours at the wheel, often under far more adverse driving conditions, than do the drivers of non-commercial vehicles. They are usually unable to select their hours of work and cannot readily abandon their passengers or cargo should they become unwell when on duty. Drivers operating emergency vehicles are frequently required to drive while under considerable stress by the nature of their work, and often in inclement weather where driving conditions are less than ideal. Should a crash occur, the consequences are much more likely to be serious, particularly where the driver is carrying passengers or dangerous cargo such as propane, chlorine gas, toxic chemicals or radioactive substances.

Because of this greater exposure, commercial drivers are routinely screened at regular intervals, even if there is no evidence that the driver has a known or possible medical condition.

4.5 Cancelling or restricting a licence because of an immediate public safety risk

Model Standard

- 4.5.1 If information obtained at any time reveals an immediate risk to public safety, authorities may direct that a licence be cancelled or restricted without further assessment.

- 4.5.2 If an authority has cancelled or restricted a licence because of an immediate public safety risk, the program may review the decision once further information is received.

Rationale

In most cases, authorities will not direct that a licence be restricted or cancelled based only on preliminary information received. However, there are times when cancellation or restriction may be warranted prior to further assessment. For example, a credible report may indicate that an individual's functional ability to drive is severely impaired. The authority would cancel the driver's licence for public safety reasons and could review the decision once further information was received.

Chapter 5: Assessing fitness to drive

5.1 Overview

Assessing fitness to drive means using any kind of test or examination to gather information about a driver's functional ability to drive. Driver fitness authorities have a variety of tools at their disposal to assess the impact of medical conditions on the functions necessary for driving. These can be categorized as either medical or functional assessments. The appropriate type of assessment depends both upon the function that is impaired and the nature of the impairment.

A functional assessment is any kind of assessment that involves direct observation or measurement of the functions necessary for driving.

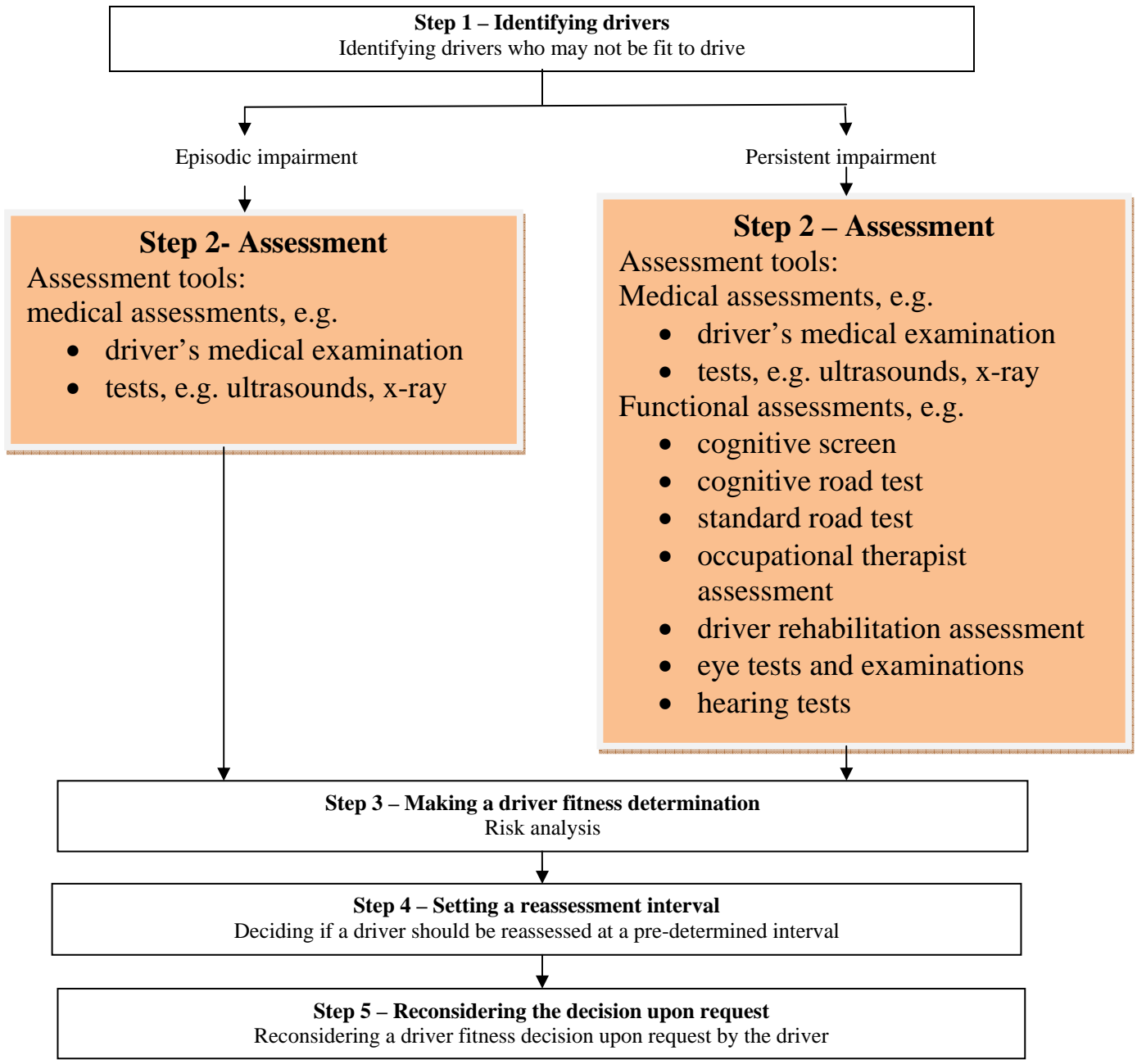
Functional assessments include:

- paper-pencil cognitive screen
- computer-based cognitive assessments
- cognitive road test
- standard road test
- occupational therapist assessment
- driver rehabilitation assessment
- eye tests and examinations, and
- hearing tests.

A medical assessment is any kind of assessment that provides information regarding an individual's medical condition and/or their response to, or compliance with, treatment. Medical assessments include:

- driver fitness reports completed by physicians including specialists
- ultrasounds
- blood tests, and
- other medical tests that are not requested by driver fitness authorities but are often submitted by physicians and provide useful information regarding an individual's medical condition.

During assessment, driver fitness authorities collect the information required to make a driver fitness determination.



5.2 Requesting functional assessments

Model

- 5.2.1 If an authority decides further information on a driver's functional ability to drive is necessary in order to make a driver fitness determination, the authority will request a functional assessment.
- 5.2.2 An authority may request a functional assessment of an individual with a persistent impairment; it will not request a functional assessment of a driver who has only episodic impairments.

Rationale

Consistent with the functional approach to driving fitness, a driver fitness program requests an assessment of an individual's functional ability to drive whenever that information is necessary in order to make a driving fitness determination.

Persistent and episodic impairments

Whether or not a functional assessment is appropriate depends upon the type of impairment. Because persistent impairments are measurable, testable and observable, it is possible to assess an individual's functional ability to drive through observation by a physician or other health care practitioner or an OT or driver rehabilitation specialist. Because episodic impairments are not measurable or testable, there is no way to functionally assess how the impairment impacts an individual's ability to drive.

5.3 Requesting medical assessments

Model

- 5.3.1 If an authority decides that further information on a driver's medical condition(s) or the driver's response to, or compliance with, treatment is required, the authority will request a medical assessment.

Rationale

To ensure that the driver fitness authority bases its driver fitness determinations on complete and accurate medical information, they request additional medical assessments whenever further information

regarding an individual's medical condition, or the individual's response to, or compliance with, treatment is required.

5.4 Assessing the cognitive functions needed for driving

Model

- 5.4.1 Generally, further information on an individual's cognitive function will be required when a credible report indicates that:
- (a) there may be some loss of cognitive function
 - (b) there is some loss of cognitive function and it is unknown whether the individual possesses sufficient cognitive function to drive, or
 - (c) the driver has a medical condition at a stage usually associated with a loss of cognitive function.
- 5.4.2 Authorities will rely on the results of cognitive screens or cognitive assessments that have been specifically designed to screen for, or assess, impairment of the cognitive functions needed for driving.
- 5.4.3 When the result of a cognitive screen is indeterminate, authorities will request a cognitive assessment of a driver.
- 5.4.4 Authorities will use the best available road test to assess possible cognitive impairment of the functions needed for driving.
- 5.4.5 Notwithstanding standards 5.4.2 to 5.4.4, if a cognitive screen, or cognitive road test is not accessible, an authority may request an occupational therapist or driver rehabilitation specialist assessment, or a gerontologist assessment, of a driver with a persistent cognitive impairment who may not be cognitively fit to drive.

Rationale

Cognitive screens

Historically, there has been a lack of reliable screening tools for the identification of individuals whose cognitive impairment or dementia

poses a risk for adverse driving outcomes. Scores on mental status tests such as the Mini Mental Status Exam (MMSE) often are used for making decisions about driving competency. However, there is now a significant amount of evidence indicating that, while the MMSE and similar tests are useful as tools for identifying cognitive decline, they are not good predictors of an individual's driving competence, particularly for those whose cognitive impairment is less severe. In addition, the scores of these tools are very sensitive to language ability and education. The *Determining Medical Fitness to Operate Motor Vehicles, CMA Driver's Guide*, 7th edition states that the MMSE does not have sufficient sensitivity or specificity to be used as a single determinant of driving ability. However, abnormalities on tests including the MMSE, clock drawing and Trails B should trigger further in-depth testing of driving ability.³

Standard neuropsychological or cognitive tests such as Trails A, Trails B, Digit Span, or the MOCA (Montreal Cognitive Assessment), designed to assess cognitive functions (e.g. attention, memory, executive functioning) also are used for decision making about driving competency. However, although these standardized tests sometimes correlate with measures of driving performance (e.g. on-road performance, crash rates), the absence of a strong and consistent relationship, as well as the lack of established cutpoints for categorizing drivers as 'safe' and 'unsafe', preclude using these tests for determination of driving competency at this time.

Recent research has focused on the development of a battery of tests using complex cognitive tasks (tasks that require the use of multiple cognitive functions simultaneously), hypothesizing that this type of testing would be a better predictor of driving performance. This research has led to the development of new screening tools that may be considered for use by driver licensing authorities.

Standard road tests

Standard road tests are conducted by provincial and territorial driver examiners who assess whether an individual has mastered the skills needed for driving. Standard road tests are not traditionally designed to measure whether or not there is an impairment of the cognitive functions needed for driving.

³ P. 27

5.5 Assessing motor function

Model

- 5.5.1 Generally, further information on a driver's motor function will be required when a credible report indicates that there is some loss of motor function and:
- (a) it is unknown whether the individual possesses sufficient movement and strength to perform the motor functions necessary for driving the types of motor vehicles permitted under the class of licence held or applied for
 - (b) it is unknown whether pain associated with a medical condition, or the medications used to treat a medical condition, adversely affect the individual's motor function, and/or
 - (c) it is unknown whether the individual can safely operate the type of motor vehicles permitted under the class of licence held or applied for using the vehicle modifications and devices that may be required to compensate for their functional impairment.
- 5.5.2 Authorities may request a standard road test where the authority needs to confirm that the individual is able to use adaptive driving equipment or vehicle modifications.
- 5.5.3 Authorities will request an occupational therapist or driver rehabilitation specialist assessment if further information is required on an individual's motor function and a standard road test will not be able to provide the required information.

Rationale

Research on motor functions and driving indicates considerable variability in the association between the different motor functions and driving outcomes. Overall, the research suggests that a significant level of impairment in motor functions is needed before driving performance is affected to an unsafe level.

Occupational therapist or driver rehabilitation specialist assessments

Occupational therapists and other specialists with expertise in driver rehabilitation are trained to perform both in-office and on-road assessments of an individual's functional ability to drive. In particular, driver rehabilitation specialists are trained to evaluate an individual's ability to compensate for motor deficits during simulated and on-road testing and determine requirements for adaptive driving equipment and vehicle modifications.

Standard road tests

Standard road tests are conducted by provincial and territorial driver examiners who assess whether an individual is able to use driving skills. Road test examinations are not specifically designed to measure whether or not there is an impairment of the motor functions needed for driving. Because of this, the use of standard road tests to evaluate driver fitness should be limited to instances where the driver examiner can easily and safely determine whether or not the motor impairment prevents safe use of the vehicle, e.g. use of hand controls or a prosthetic device.

5.6 Assessing sensory function – vision

Model

- 5.6.1 Generally, further information on a driver's visual function is required when a credible report indicates that there is some loss of visual function and:
- (a) it is unknown whether the individual possesses sufficient vision necessary for driving the types of motor vehicles permitted under the class of licence held or applied for
 - (b) it is unknown whether pain associated with the condition, or the medications used to treat the condition, adversely affect the individual's visual function, and/or
 - (c) it is unknown whether the individual can safely operate the type of motor vehicles permitted under the class of licence held or applied for using the vehicle modifications and devices that may be required to compensate for their functional impairment.

5.6.2 Authorities will request an occupational therapist or driver rehabilitation specialist assessment – which will generally include an on-road assessment - if further information is required on whether a driver’s vision is such that they are fit to drive.

Rationale

Although there are tools that measure, for example, visual acuity and visual field, the vision standards for driving are based on consensus opinion of subject matter experts. This is because there is no research that has identified what level of vision impairment makes a person unable to drive safely.

The loss of certain visual functions can be compensated for adequately, particularly in the case of long-standing or congenital impairments. When a person becomes visually impaired, the capacity to drive safely varies with their ability to compensate. As a result, there are people with visual deficits who do not meet the vision standards for driving but who are able to drive safely. Because of this, further assessment may be required for drivers who do not meet the stated vision standards.

5.7 Assessing sensory function – hearing

Model

5.7.1 Generally, further information on a driver’s hearing function can be obtained when a report indicates that there is some loss of function.

Rationale

There are a number of tools that measure hearing performance, for example audiometric tests and the whisper test. However, the function relating to the driving test has not been determined as there is little research that has identified what level of hearing impairment makes a person unable to drive safely.

The focus of hearing tests relate to the ability to hear or communicate is of paramount importance for the operation of certain commercial vehicles including a passenger bus, ambulance or other emergency vehicles.

5.8 Assessing drivers with multiple functional impairments

Standard

- 5.8.1 If an authority decides that more than one of the functions necessary for driving needs to be assessed, the authority will request functional assessments in the following order:
- (a) assessments of cognitive function
 - (b) assessments of sensory function, and
 - (c) assessments of motor function.
- 5.8.2 If the results of an assessment indicate that an individual's cognitive, motor or sensory function is impaired to the extent that the individual is not fit to drive, the authority may make a driver fitness determination without requesting further assessments of the other functions necessary for driving.

Rationale

Some drivers may have impairments to more than one of the functions necessary for driving. In this situation, an authority prioritizes requests for functional assessments based on the functions that may be impaired. Because there are assessment tools available to specifically measure cognitive impairment as it relates to driving – and a driver cannot compensate for cognitive impairment - if an individual's cognitive function may be impaired that function will be assessed first. Sensory functions are assessed next, followed by motor functions. If an assessment indicates that a function is impaired and a driver is not fit to drive there is no need to continue with further assessments of the other functions that may be impaired.

5.9 Assessing drivers with multiple medical conditions

Model

- 5.9.1 If a driver has multiple medical conditions that result in a cumulative or combined effect on the functions necessary for driving such that the medical conditions cannot be considered individually or independently, the authority will request

functional assessments (where applicable) of each function that may be impaired, even if the medical condition standards for each identified medical condition indicate that the individual is fit to drive.

- 5.9.2 Authorities should request functional assessments of individuals with multiple medical conditions that cannot be considered independently, unless the driver fitness standards for any of the identified medical conditions clearly indicate that the individual is not eligible for a licence.

Rationale

The impact of multiple medical conditions on functional ability to drive is very important when making determinations about fitness to drive. Research results indicate that drivers with multiple medical conditions are, in general, at higher risk for crashes and at-fault crashes than those with a single medical condition.

The driver fitness standards in Part 2 each focus on a single medical condition, e.g. cardiovascular disease, and the standards are written as if an individual only had one medical condition. This is because the number of combinations of illnesses and medications is simply too large to make reliable and valid driving standards that could support making decisions about driving fitness for specific individuals.

This means that the driver fitness standards cannot always be relied upon in order to make a driver fitness determination for a driver with more than one medical condition. While the standards for each individual medical condition may indicate that the individual is eligible for a licence, if the medical conditions have a cumulative effect on the functional ability to drive, the individual may, in fact, not be eligible.

5.10 Time period during which assessments are valid

Model

- 5.10.1 Generally, an authority will accept the results of any assessment conducted within the previous one-year period, even if completed for another purpose, as long as it provides the required information.

Rationale

Assessments may be costly and time-consuming for drivers, authorities and health care providers. If an assessment has already been conducted that provides the information required for a driver fitness determination, there is no need for an individual to be re-assessed, so long as the results of the assessment are still reliable. Because many conditions are progressive, and an individual's abilities may change over time, assessment results generally only continue to be reliable for a limited period of time after completion of the assessment.

5.11 Time limits for drivers to complete assessments

Model

- 5.11.1 Whenever a driver fitness program requests an assessment, it will inform the individual of the time period within which the assessment must be completed.
- 5.11.2 Upon request, a driver fitness authority may extend the time period for an individual to comply with a request for an assessment. In considering whether to extend the time period, the authority will consider information from the driver regarding the circumstances that necessitate an extension, such as
- (a) work commitments
 - (b) the driver's location,
 - (c) the driver's degree of mobility, and/or
 - (d) availability of assessors.
- 5.11.3 If a driver does not comply with a request for an assessment within the time period or extension:
- (a) the authority will direct that the driver's licence be cancelled, in the case of a driver who is already licensed, or
 - (b) will direct that a licence not be granted, in the case of an individual who has applied for a licence.

Rationale

Both for public safety and administrative fairness reasons, driver fitness determinations must be made as soon as possible after an individual is identified. A driver's licence is a privilege. Where further information is

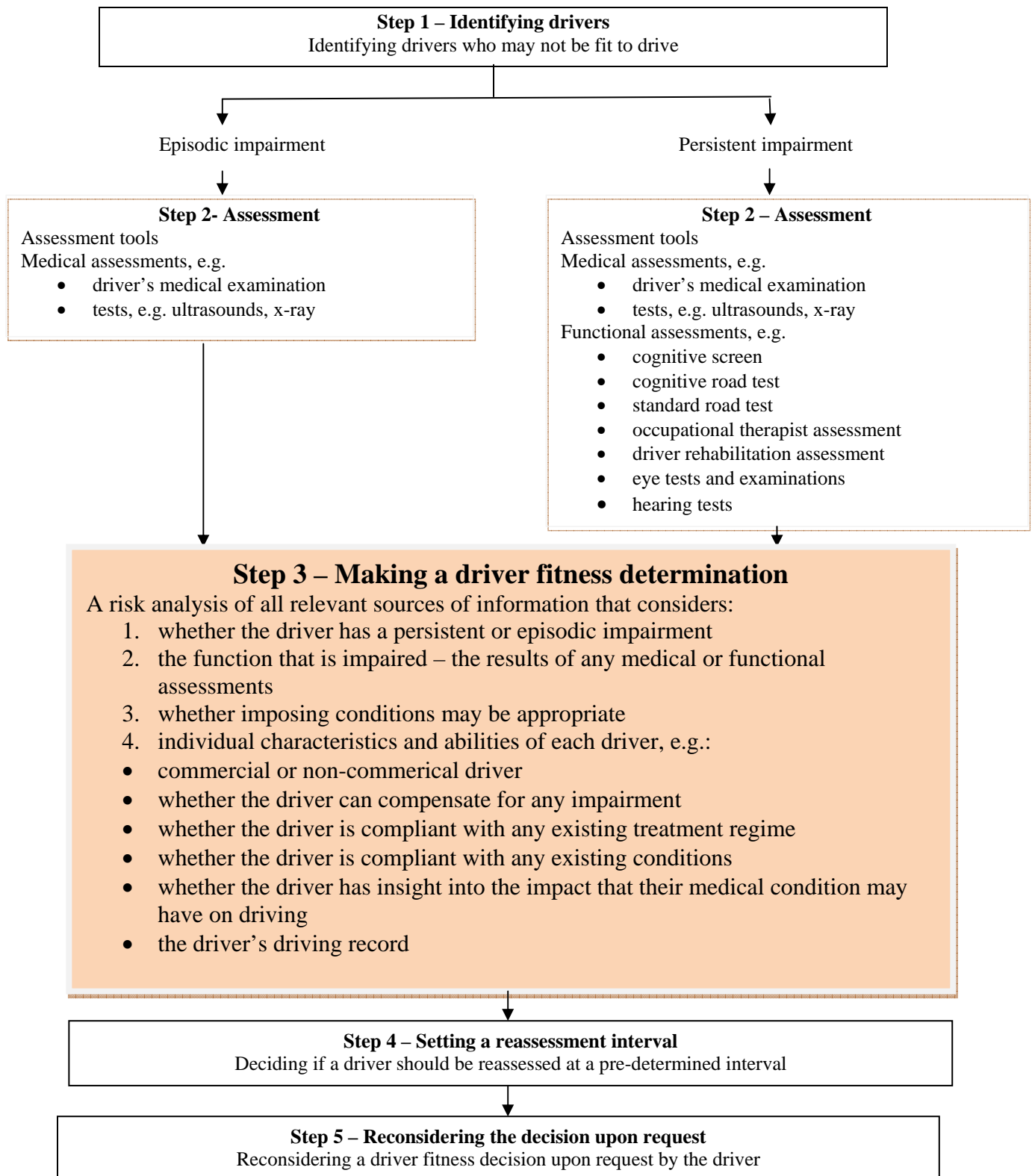
required to make a determination, this means individuals must comply with requests for assessments in a timely fashion. If an individual does not comply with a request for an assessment, jurisdictions have the authority to direct the licence be suspended or cancelled.

Chapter 6: Making a driver fitness determination

6.1 Overview

When making a driver fitness determination, a driver fitness authority will review all of the information gathered during assessment, will consider the degree of risk presented by a driver and will determine whether that individual should be licensed. In some cases, an individual can only be licensed if they follow certain conditions that will reduce the level or risk of impairment. Driver fitness authorities have the ability to place conditions on either an individual or an individual's licence if they are necessary to ensure the safe operation of a motor vehicle

The standards outlined in Part 2 are based on the best available evidence regarding degree of risk and identify where the use of conditions may be appropriate to reduce risk; they guide decision-makers in determining the degree of risk presented by individual drivers.



6.2 Sources of information for making a driver fitness determination

Model

6.2.1 Driver fitness authorities will make driver fitness determinations based on the medical condition standards and using a risk assessment analysis that considers:

- (a) whether the individual has a persistent or episodic impairment
- (b) the function that is impaired – the results of any medical or functional assessments
- (c) whether imposing conditions may be appropriate, and
- (d) the individual characteristics and abilities of each driver, for example:
 - whether the driver is a commercial or non-commercial driver
 - whether the driver can compensate for any impairment
 - whether the driver has insight into their medical condition and how it may affect their functional ability to drive
 - whether the driver is compliant with any prescribed treatment regime
 - whether the driver is compliant with any existing conditions,
 - the driver's driving record, and
 - any other information relevant to driving privileges.

Rationale

Each driver is unique, and drivers may have multiple medical conditions or medical conditions which are not addressed in the driver fitness standards, authorities also review and consider other available and relevant information when making driver fitness determinations.

6.3 Considering persistent impairments

Model

- 6.3.1 An authority will make a driver fitness determination for an individual with a persistent impairment based on observable and measurable evidence of functional impairment.
- 6.3.2 In general, if a review of the information collected during assessment for an individual with a persistent impairment indicates no functional impairment, or a level of functional impairment that does not impact the individual's ability to drive safely, the individual may be licensed.

Rationale

Because drivers with persistent impairments are continuously impaired, authorities can make determinations for drivers with persistent impairments based on observable and measurable evidence of functional impairment.

6.4 Considering episodic impairments

Model

- 6.4.1 A driver fitness authority will make a driver fitness determination for an individual with an episodic impairment based on the probability and consequences of an event of functional impairment occurring.

Rationale

Because drivers with episodic impairments are not continuously impaired, authorities cannot make determinations for individuals with episodic impairments based on observable and measurable evidence of functional impairment. Instead, they must rely on a risk analysis that takes into account the probability and consequence of impairment when making a driver fitness determination for an individual with an episodic impairment. To assist authorities in performing this analysis, the driver fitness standards for medical conditions that result in episodic impairments incorporate expert opinion regarding at what level of disease severity the medical condition may result in a functional impairment.

6.5 Considering cognitive impairment

Model

- 6.5.1 If a driver's cognitive assessment is within the range established for 'fit to drive', then the driver is cognitively fit to drive. This assessment may identify some cognitive function decline and necessitate more frequent cognitive assessment intervals to be determined by the driver fitness administrator.
- 6.5.2 If a driver's cognitive assessment is within the range established as 'not fit to drive', then the driver fitness administrator must consider all factors to determine if the driver is cognitively fit to drive.
- 6.5.3 If an individual fails a cognitive assessment, the individual's cognitive function may not be sufficient to drive safely and the individual may not be eligible for a licence.

Rationale

See Part 2, Chapter 5, 'Assessing the cognitive functions needed for driving'

6.6 Considering motor impairment

Model

- 6.6.1 When making a driver fitness determination for a driver whose motor function may be impaired an authority will review and consider the information listed in standard 6.2.1.
- 6.6.2 Generally, the results of an on-road assessment will be determinative when making a driver fitness determination.

Rationale

Unlike cognitive impairment, there are no assessment tools available that are specifically designed to assess the motor functions needed for driving. This means that authorities must review information from all relevant sources of information and exercise discretion and judgment when determining driver fitness for individuals with motor impairments.

6.7 Considering sensory impairment – vision

Model

- 6.7.1 When making a driver fitness determination for a driver whose vision may be impaired, an authority will follow the vision standards in Chapter 22 of Part 2 and the information listed in standard 6.2.1.
- 6.7.2 Generally, the results of an on-road assessment will be determinative when making a driver fitness determination.

Rationale

Results from studies investigating the relationship between visual abilities and driving performance are, for the most part, equivocal. It may be, as suggested for motor abilities, that a significant level of visual impairment is needed before driving performance is affected.

There are many different kinds of visual impairment, for example, individuals with impaired visual acuity may lack the ability to perceive necessary details while driving while visual field impairments may interfere with driving by limiting the area that an individual can see. And, drivers with reduced contrast sensitivity may have difficulty seeing traffic lights or cars at night. Limitations in research and testing preclude standards for impairments in contrast sensitivity, dark adaptation, or glare recovery, although some individuals with these impairments may not be fit to drive.

The loss of certain visual functions can be compensated for adequately, particularly in the case of long-standing or congenital impairments. When a person becomes visually impaired, the capacity to drive safely varies with their ability to compensate. As a result, there are people with visual deficits who do not meet the vision standards for driving but who are able to drive safely.

Although there are tools that measure, for example, visual acuity and visual field, the vision standards for driving are based on consensus opinion of subject matter experts. This is because there is no research that has identified what level of vision impairment makes a person unable to drive safely.

6.8 Considering sensory impairment – hearing

Model

- 6.8.1 When making a driver fitness determination for a driver whose hearing may be impaired, an authority will follow the hearing standards in Chapter 9 of Part 2 and the information listed in standard 6.2.1.

Rationale

The ability to hear or communicate is of paramount importance for the operation of certain commercial vehicles including a passenger bus, ambulance or other emergency vehicles

6.9 Considering imposing conditions

Model

- 6.9.1 If a driver fitness authority determines that an individual must:
- (a) stop driving in specific circumstances
 - (b) take prescribed medications
 - (c) comply with a specific treatment regime
 - (d) report a change in their medical condition
 - (e) attend medical follow-up
 - (f) only operate vehicles during daylight hours
 - (g) only operate certain types of vehicles
 - (h) only operate vehicles in certain geographic areas
 - (i) only operate vehicles under a certain speed
 - (j) only carry certain types of cargo
 - (k) wear specific devices, and/or
 - (l) use specific vehicle modifications or adaptations
- in order to be licensed, the authority will impose those conditions on the individual or the individual's licence.
- 6.9.2 Without information to the contrary, authorities will assume that a driver will comply with a condition. However, if the information obtained from assessments indicates that the driver is

not likely to be compliant with any conditions that are required in order to be licensed, the authority may not licence the individual.

Rationale

Generally, authorities will refer to the driver fitness standards to determine the conditions that are required. However, because the driver fitness standards may not always apply in individual circumstances, authorities may impose conditions that are not contemplated by the standards. If the risk associated with a medical condition at a certain severity level is high, and the risk cannot be reduced through the use of conditions, the standards indicate that an individual is not eligible for licensing.

6.10 Considering specific requirements for commercial drivers

Model

- 6.10.1 When determining whether an individual can be licensed as a commercial driver, a driver fitness authority will consider:
- (a) the number of hours an individual with that type of licence typically spends driving
 - (b) any physical requirements (e.g. load securement) associated with the operation of motor vehicles allowed under that type of licence, and
 - (c) any information provided by the driver or the driver's employer regarding:
 - the types of vehicles they will be operating, and
 - how many passengers they will carry and for what purpose.
- 6.10.2 If a driver is not fit to be licensed as a commercial driver, the authority will consider whether the driver is fit as a non-commercial driver.

Rationale

The class of licence held or applied for is a key consideration when making a driver fitness determination. Commercial drivers who operate passenger carrying vehicles, trucks and emergency vehicles spend many more hours at the wheel than non-commercial drivers. Commercial drivers may also be called upon to undertake heavy physical work such as

loading or unloading their vehicles, realigning shifted loads and putting on and removing chains. Because the physical and endurance requirements for commercial drivers are generally more onerous than for non-commercial drivers, the driver fitness standards often specify different standards for commercial and non-commercial drivers.

6.11 Considering whether the driver can compensate

Model

- 6.11.1 Driver fitness authorities will consider whether a driver can compensate for their functional impairment when making a driver fitness determination.
- 6.11.2 A driver cannot compensate for an episodic impairment.
- 6.11.3 Whether an individual can compensate for a persistent impairment depends upon the functional ability that is impaired. Individuals with impairments in motor function, vision or hearing may be able to compensate for those impairments. Individuals with progressive or irreversible declines in cognitive function cannot compensate for a cognitive impairment.
- 6.11.4 In general, an individual who can compensate for their functional impairment is fit to drive if their cognitive, sensory and motor functions are acceptable.

Rationale

In some situations, drivers who would otherwise not be fit to drive have learned strategies, or utilize devices, that reduce or eliminate their functional impairment. For example:

- a driver with limited peripheral vision may use the strategy of turning their neck to the left and right to ensure they have a full field of view, or
- a driver who is unable to use their lower limbs may have their vehicle modified for hand controls.

In keeping with the decision in *Grismer*, and CCMTA principles, driver fitness authorities will make driver fitness determinations on an individual basis, based on the results of individual assessments. In general, if a

review of assessment results and the individual's driving record indicates that a driver is able to compensate for their functional impairment, the driver is fit to drive.

6.12 Considering insight

Model

- 6.12.1 If a driver fitness authority decides that conditions are required in order for an individual to be fit to drive, it will review:
- (a) medical assessments on file for information that indicates that the driver has, or does not have, insight into their medical condition or its impact on the functions necessary for driving
 - (b) medical assessments on file for information that indicates that the driver is non-compliant with their prescribed treatment regime or medications
 - (c) the driver's driving record for any information that indicates the individual has been non-compliant with conditions in the past, and
 - (d) any credible reports for information that indicates that the driver has been non-compliant with conditions in the past.
- 6.12.2 Without information to the contrary, an authority will assume that an individual has insight into their medical condition and its impact on their driving. However, if the information obtained indicates that the driver lacks insight, the individual may not be fit to drive.

Rationale

One key factor for determining whether a driver is fit to drive is the driver's level of insight. This is because drivers with good insight are more likely to be diligent about their treatment regime, to seek medical attention when needed, and to avoid driving when their condition is likely to impair their functional ability to drive.

An individual's level of insight is a critical consideration when assessing the risk of an episodic impairment of functional ability due to a psychiatric disorder. Because of this, there is a specific guideline regarding insight in the Psychiatric Disorders chapter.

6.13 Considering compliance with existing treatment regime

Model

- 6.13.1 If a driver is currently being treated for a medical condition, the authority will review any medical assessments or other information that indicates that the driver is non-compliant with their prescribed treatment regime or medications. If the information obtained indicates that the driver is not compliant with any existing treatment regime that is required in order to be fit to drive, the driver is not fit to drive.
- 6.13.2 Without information to the contrary, a driver fitness authority will assume that a driver is in compliance with their existing treatment regime.

Rationale

Individuals who are diligent about their treatment regime are more likely to have good insight into their medical condition, to seek medical attention when needed, and to avoid driving when their condition is likely to impair their functional ability to drive.

6.14 Considering compliance with existing conditions of licence

Model

- 6.14.1 If a driver currently has licence conditions, the authority will review any information that indicates that the driver is non-compliant with the conditions. If the information obtained indicates that the driver is not compliant with any condition that is required in order to be fit to drive, the driver is not fit to drive.
- 6.14.2 Without information to the contrary, a driver fitness authority will assume that a driver is in compliance with their existing licence conditions.

Rationale

A key consideration when determining whether or not a driver is fit to drive is whether an individual is in compliance with current licence conditions. Because conditions are only imposed if required for driver fitness, if a driver is not in compliance with existing conditions they should not be licensed.

6.15 Considering the driving record

Model

6.15.1 Where driving records are available, authorities will review a driver's driving record for any information that indicates whether the identified medical conditions impair the functions necessary for driving. In particular, authorities will review:

- (a) whether there has been a deterioration, improvement or no change in driving safety (i.e. crashes, penalty points and infractions) that can be linked to:
 - the date of onset
 - the date of diagnosis, and/or
 - the date the driver began a new treatment regime, prescribed medication or compensation strategy, and
- (b) any evidence on file (e.g. police reports) that indicates that incidents were related to the individual's medical conditions.

Rationale

An individual's driving record may indicate that a medical condition is affecting their functional ability to drive. A lengthy, clean driving record for a driver with a long-standing medical condition may be evidence of:

- a low level of impairment
- an ability to compensate, or
- a condition that is well controlled.

A driving record with multiple crashes may indicate functional impairment.

Chapter 7: Reassessment

Reassessment is the process of re-assessing and making a new determination of fitness for a driver with a previously reported medical condition. Reassessment is initiated by driver fitness authorities when a request for a reassessment is sent to a driver at the expiration of a scheduled reassessment interval or at any other time in the discretion of the authority.

For some medical conditions, a reassessment interval is provided in the standards. In those circumstances where a reassessment interval is not provided, or where individual circumstances may require a different interval, e.g. when the individual has multiple medical conditions, the authority will review the relevant information to determine whether the driver's level or risk of impairment may increase and the time period over which this increase may take place.

Where a reassessment interval is provided in the standards, it is a minimum. This means that no more than the stated number of years can pass before the driver is reassessed. However, if, in the opinion of the treating physician, other medical professional or the driver fitness authority, the driver should be reassessed more frequently, then an earlier reassessment interval should be set.

Step 1 – Identifying drivers
Identifying drivers who may not be fit to drive

Episodic impairment

Persistent impairment

Step 2- Assessment

Assessment tools

Medical assessments, e.g.

- driver's medical examination
- tests, e.g. ultrasounds, x-ray

Step 2 – Assessment

Assessment tools

Medical assessments, e.g.

- driver's medical examination
- tests, e.g. ultrasounds, x-ray

Functional assessments, e.g.

- cognitive screen
- cognitive road test
- standard road test
- occupational therapist assessment
- driver rehabilitation assessment
- eye tests and examinations
- hearing tests)

Step 3 – Making a driver fitness determination

A risk analysis of all relevant sources of information that considers:

1. whether the driver has a persistent or episodic impairment
2. the function that is impaired - the results of any medical or functional assessments
3. whether imposing conditions may be appropriate
4. individual characteristics and abilities of each driver, e.g.:
 - commercial or non-commercial driver
 - whether the driver can compensate for any impairment
 - whether imposing conditions or restrictions will
 - whether the driver is compliant with any existing treatment regime
 - whether the driver is compliant with any existing conditions
 - whether the driver has insight into the impact that their medical condition may have on driving
 - the driver's driving record

Step 4 – Setting a reassessment interval

Deciding if a driver should be reassessed at a pre-determined interval

Step 5 – Reconsidering the decision upon request

Reconsidering a driver fitness decision upon request by the driver

7.1 Routine reassessment intervals – commercial drivers

Model

- 7.1.1 Unless a different reassessment interval is set because of a medical condition, authorities will routinely identify commercial drivers for a review of driver fitness at the time of licence application and then at the following intervals:
- (a) up to age 45, every 5 years
 - (b) from age 45 to age 65, every 3 years, and
 - (c) from age 65, annually.

Rationale

See Part 2, Chapter 4, section 4.2 ‘Commercial Drivers’.

7.2 Routine reassessment intervals – non-commercial drivers

Model

- 7.2.1 Unless a different reassessment interval is set because of a medical condition, authorities will routinely identify non-commercial drivers for a review of driver fitness, for example:
- (a) at age 75
 - (b) at age 80, and
 - (c) every 2 years over age 80.

Rationale

See Part 1, Chapter 4, section 4.3 ‘Non-commercial drivers’

7.3 Determining whether reassessment is required (other than routine)

Routine reassessment intervals are a minimum standard for reassessment. There may be instances, however, when drivers should be reassessed more frequently.

Model

- 7.3.1 To determine whether reassessment is required, the authority will consider:

- (a) the driver fitness standard(s) for the relevant medical condition(s)
- (b) the date of onset, diagnosis and/or treatment of the medical condition, if known
- (c) the severity of the medical condition
- (d) whether the condition is stable and, if so, the period of stability
- (e) whether the condition is progressive and, if so, the rate of progression
- (f) whether the condition is controlled
- (g) where appropriate, the date of the next routine reassessment (i.e. age-related or commercial driver routine)
- (h) whether the individual has been compliant with any prescribed treatment regime, conditions or restrictions
- (i) the results of any functional assessments
- (j) the individual's driving record, and/or
- (k) the recommendation of a physician.

7.3.2 Generally, reassessment will be required if:

- (a) the driver has a medical condition that is progressive
- (b) the driver fitness determination is based upon the effectiveness of a prescribed treatment regime and it is unknown whether the treatment regime is likely to continue to be effective
- (c) the driver fitness determination is based upon the effectiveness of a prescribed treatment regime and it is unknown whether the individual is likely to comply with the treatment regime
- (d) the medical condition results in episodic impairment, the driver fitness determination is based upon an individual having a period of stability without an episodic event, and it is unknown whether the medical condition is likely to continue to be stable
- (e) the medical condition results in an episodic impairment, the driver fitness determination is based upon a pattern of episodes, e.g. nocturnal seizures or auras, and it is unknown whether the pattern of episodes is likely to continue

- (f) it is recommended by a physician, and/or
- (g) the driver fitness standard for that medical condition indicates that reassessment is required.

Rationale

A driver fitness authority schedules a reassessment when the authority decides an individual can be licensed but may require follow-up assessment in the future to ensure the driver's level or risk of impairment has not increased.

7.4 Setting the reassessment interval

Model

- 7.4.1 If an authority determines that an individual can be licensed, the authority will also decide whether reassessment is required and, if so, what the reassessment interval should be.
- 7.4.2 A driver fitness authority will not schedule a reassessment for a commercial driver if the driver's next scheduled routine re-assessment will provide the authority with the necessary opportunity for reassessment.
- 7.4.3 A driver fitness authority can set any reassessment interval that is appropriate for a particular driver. Generally, an authority will set a reassessment interval at either:
 - (a) 1 year
 - (b) 2 years
 - (c) 3 years, or
 - (d) 5 years.
- 7.4.4 Generally, a driver fitness authority will schedule a reassessment in 1 year if:
 - (a) a driver's cognitive function is impaired and the level of cognitive impairment is likely to increase over time
 - (b) the driver fitness determination is based upon the effectiveness of a prescribed treatment regime and it is

unknown whether the treatment regime is likely to continue to be effective

- (c) the driver fitness determination is based upon the effectiveness of a prescribed treatment regime and it is unknown whether the individual is likely to comply with the treatment regime
- (d) the medical condition results in episodic impairment, the driver fitness determination is based upon an individual having a period of stability without an episodic event, and it is unknown whether the medical condition is likely to continue to be stable
- (e) the medical condition results in an episodic impairment, the driver fitness determination is based upon a pattern of episodes, e.g. nocturnal seizures or auras, and it is unknown whether the pattern of episodes is likely to continue.

7.4.5 In most other circumstances where reassessment is required, an authority will schedule a 2, 3 or 5 year reassessment interval, depending upon the likely rate of progression of the medical condition(s).

Rationale

Reassessment intervals of less than 1 year are generally not scheduled, because the majority of medical conditions do not substantially progress in such a short period of time. However, because of the rapid decline in cognitive function associated with many conditions, one year intervals are usually scheduled for individuals with cognitive impairments. One year intervals are also scheduled for individuals with episodic impairments where it is unknown if the stability of the condition, the pattern of episodes or the effectiveness of treatment is likely to change. This is because a period of one year is usually sufficient to determine whether such a change is likely to occur in future.