# in partnership with **Driving Mobility**

Annex 1:

Guidelines forming the 'Ideal' Driver Assessment

Extract from the

Final summarising report

of the collaborative work of members of the

Fit to Drive Topical Group, Subgroup 1: Setting Standards for Disabled Driver Assessment

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**CIECA** 

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## 1. DEFINING DRIVER ASSESSMENT

"Driver assessment is a multi-disciplinary clinical process to create an opinion on fitness to drive (FTD) referring to the EU Driving Licence Directive. A clinical process determines functional consequences of medical challenges in terms of physical, (neuro) psychological, behavioural and attitudinal aspects.

The clinical process focuses on the person, namely the driver. It does not pre-define the methodology."1

#### 2. INTRODUCTION TO THE GUIDELINES

This document is an extract from the Final summarising report of the collaborative work of members of the Fit to Drive Topical Group<sup>2</sup>, Subgroup 1: Setting Standards for Disabled Driver Assessment (January 2021). Subgroup 1's membership included a range of professionals involved in the developing field of driver assessment in relation to medical fitness to drive, from the following countries and CIECA-member organisations:

Austrian Road Safety Board (KFV), Austria CAS, United Kingdom CBR, The Netherlands DEKRA, Germany German Society for Traffic Psychology (DGVP), Germany Driver and Vehicle Standards Agency (DVSA), Great Britain Driving Mobility, United Kingdom European Driving Schools Association (EFA) Finnish Transport and Communications Agency (Traficom), Finland Ministry of the Interior / DGT, Spain German Road Safety Council (DVR), Germany Ministry of the Interior / DSR CT, France National Confederation of Driving Schools (CNAE), Spain Nord University, Norway Norwegian Public Roads Administration, Norway Road Safety Authority, Ireland Swedish Transport Administration, Sweden Swedish Transport Agency, Sweden VdTÜV, Germany Vias institute, Belgium.

<sup>1</sup> Defining driver assessment, extract from CIECA Fit to Drive Topical Group. (2021). Setting Standards for Disabled Driver Assessment: CIECA/Driving Mobility final summarising report of the collaborative work of members of Subgroup 1. Brussels: CIECA. pp 16-18.

<sup>&</sup>lt;sup>2</sup> Topical Groups are temporary domain-specific groups to focus on discussion and activity around a given area. Topical Groups provide an opportunity for CIECA Members with similar interests to discuss and explore particular areas of driver training and testing. [https://www.cieca.eu/our-organisation/organisational-structure] Accessed 3 July 2020



One of the recommendations from Subgroup 1 was that Annex 1 containing the guidelines should be extracted from the final summarising report, to be used as a 'stand-alone' document. This would enable ease of access, for the guidelines to be used by organisations and individuals involved in developing driver assessment. However, in order to understand the context of the guidelines in relation to the fitness to drive (FTD) process, it is strongly advised that reference is made to the full summarising report.<sup>3</sup>

The guidelines have been constructed by members of Subgroup 1; they are not intended to instruct the driving assessor on 'how to carry out a driver assessment'. However, they form Subgroup 1's views on the main components the driving assessor should consider in order to form a professional opinion on the impact of a person's health condition or disability on the task of driving. The guidelines support professionals involved in, or developing driver assessment, to reach a recommendation based on a consistent and fair approach.

Advice and information for the driving assessor related to specific health conditions and how these may impact on the driving task, as well as appropriate vehicle adaptations, is planned to be addressed as a future website resource. The Steering Group has already put a lot of energy and effort into the design of a future website, with the project name PracDriva (Practical Clinical Driver Assessment)4. A recommendation from FTD Subgroup 1 relates to CIECA and Driving Mobility considering a future way forward to support and foster this ambitious project. Subgroup 1 members would be extremely grateful if this project could be considered to the largest extent possible.

The guidelines reflect the generic nature of the 'ideal' driver assessment. It is recognised there may be different referral pathways for driver assessment within countries and organisations. For example, the need for a driver assessment may be identified as part of monitoring the progress of the driver's rehabilitation, or as part of the legal fitness to drive decision-making process for the particular country. This demonstrates the challenges when creating generic guidelines; in some cases, where a specific country's framework would make it impossible to reflect a specific element of a guideline, this has been identified as a footnote to the guideline.

<sup>&</sup>lt;sup>3</sup> CIECA Fit to Drive Topical Group. (2021). Setting Standards for Disabled Driver Assessment: CIECA/Driving Mobility final summarising report of the collaborative work of members of Subgroup 1. Brussels: CIECA

<sup>&</sup>lt;sup>4</sup> PracDriva: Practical Clinical Driver Assessment (Guidelines and recommendations for the clinical process of fitness to drive) website in development 2020

## 3. THE GUIDELINES

#### 3.1 Guideline 1: Knowledge and skills of professionals undertaking driver assessment

Minimum standards for professionals involved in driver assessment

## Introduction

The specific knowledge and skills of an individual professional depend on which part of the process he / she is involved. However, the following knowledge and skills need to be available within the team / professionals undertaking the complete driver assessment, and all professionals involved must display the appropriate attitudes.

This guideline has been written to reflect the nature of the generic 'ideal driver assessment' and relates to the knowledge, skills and experience expected from a professional involved in the process. There may be different referral pathways for driver assessment, for example as part of monitoring the progress of the driver's rehabilitation, or as part of the legal decisionmaking process. However, the skill sets required for practitioners involved would not differ.

See position in Germany 5.

## 1. Knowledge

## 1.1 Legal / licensing

The professional must have knowledge of, or knowledge of where to find, their host countries' regulations regarding driving licences.

### 1.2 Ethical framework

Each professional complies with their own profession's standards, for example, HCPC – The Health and Care Professions Council in the UK noting the importance of issues such as confidentiality, governance, consent.



<sup>&</sup>lt;sup>5</sup> From the German perspective, a distinction should be drawn according to the purpose of the driver assessment. At least four types of in-car on-road assessment must be differentiated.

<sup>1.</sup> in-car on-road assessment with legal consequences within the framework of driver assessment for persons with movement disabilities (e.g. by a driving licence examiner/assessor in Germany)

<sup>2.</sup> practical driving check in a clinical context (e.g. in the context of rehabilitation caused by an accident); The focus here is on doctor's obligations to provide clarification and information on fitness-to-drive status without legal consequences

<sup>3.</sup> driving behaviour assessment with legal consequences within the scope of the medical-psychological assessment (MPU) or a pure medical assessment

<sup>4.</sup> voluntary on-road test with individual feedback (e.g. of older road users)

## 1.3 Ergonomics and enabling technology

The professional should be aware that constant developments in technology exist to overcome physical impairments, if cognitive /psychological/behavioural abilities allow. The professional should be able to refer the client to an appropriate adaptations assessor if they cannot offer specialist advice within their own service.

## 1.4 Disabling medical conditions and impact on driving

The professional should have knowledge of likely impairments that arise as a result of common medical conditions. The professional should also be able to access and understand information about less common conditions. The professional must understand the potential for progression, or otherwise, of impairments for any client and how that may impact on driving.

## 1.5 Ways of compensating for absent limb function

The professional must be aware of current solutions to compensate for absent limb function and be able to determine if an individual could benefit from them in relation to their physical/cognitive//psychological/behavioural abilities.

## 1.6 Impact of higher cortical impairments and behaviour

The professional must understand how impairments (whether these are identified by this professional or another clinician) in the higher cognitive functions and behaviour, most important for driving, for example, judgement, visuospatial skills, attention, memory, praxis, executive function, can impact on their ability to execute the driving task effectively and safely.

## 1.7 Intellectual / learning disability

The professional should start from a positive perspective and appreciate some individuals as having specific, complex (multi) and hidden (undiagnosed) needs and these do not necessarily need to be a barrier to driving. The professional should understand the potential psychological / behavioural issues of someone with an intellectual / learning disability and how these may impact on the learning process and ability to execute the the driving task effectively and safely. The professional should understand that the individual's driving performance may reflect his/her interpretation of sensory information, rather than an intellectual problem.

The professional should be able to adopt a flexible approach to problem solving, unique to the individual, rather than expecting conformity to 'a norm'. It is important that the professional remain sensitive, tactful and honest, having the knowledge and understanding of the client's potential for progression, but also knowing when to discontinue driving.

The professional should be able to refer the individual to an experienced specialist if they cannot offer specialist advice within their own service.



## 1.8 Standards for "safe" driving

The professional must appreciate that a driver assessment is not a driving "test". They must determine if potentially unsafe driving behaviour is as a result of the individual's underlying medical condition and outside of the normal range of performance expected in drivers with equivalent experience (that is, without the medical condition).

## 1.9 Task of driving

The professional must understand how the psychomotor task of driving is controlled by visual, psychological and higher cognitive functions, and how impairments in one or more domains may impact on overall driving choices and performance.

## 1.10 Knowledge of funding opportunities for individuals

The professional must be aware of potential sources of funding for individuals to assist, for example, with vehicle adaptation costs and driving lessons. The professional should be able to direct clients to services that can provide relevant information. This may include, in some countries, financial state disability benefits or financial support from charitable organisations.

## 1.11 Alternative mobility solutions

The professional must know about relevant alternative mobility solutions, should the client be advised to cease driving. They should be able to advise the client on ways these solutions can be accessed physically and in a cost-effective way.

## 2. Skills

## 2.1 Risk assessment and management

The professional should be skilled in assessing risk in relation to the assessment process, which often occurs in an interdisciplinary context. It is important that due liaison, feedback and audit is undertaken of driver assessments. This includes assessing risk (or additional clinical assessment of risk) in relation to underlying medical condition, for example, measuring blood sugar before driving for patients with type 1 diabetes. To consider the safety of assessors, for example, should additional professional support be required if the individual has behavioural issues post head injury etc. Risk reduction should be employed, for example, use of dual controls in assessment vehicle, appropriate insurance cover, facility/procedure for summoning help in an accident situation.

### 2.2 Communication skills

The professional should have good communication skills, being able to communicate openly and clearly about the reason for and the content of the assessment, including the possible consequences of the outcome. They must be able to communicate unwelcome news compassionately and manage communication with anxious or angry/aggressive individuals.



## 2.3 Ability to deal with uncertainty

The professional should have the skills and confidence to manage the driver assessment appreciating that all individuals are different and countless combinations of physical and mental limitations exist. The professional should have a flexible approach to the individual being assessed, and the assessment process should reflect this: in addition, liaison with the treating clinician(s) may assist in the final decision.

## 2.4 Assessment of individual's impairments, their impact on safe driving, and potential to compensate for them

The professional, in conjunction with the treating clinician(s) as appropriate, should use their knowledge of a particular medical diagnosis to consider how the condition might develop, the possible impairments (physical, cognitive or behavioural) to consider the potential consequences for the individual's fitness and / or ability to drive. The questions during the pre-drive assessment should be based upon the medical conditions of the individual, and the in-car assessment must be conducted to identify the presence or absence of the type of driving problem usually found in the condition(s). If technical adaptations are necessary to facilitate safe driving, the professional must consider the anticipated natural history of the condition when making recommendations to the client.

## 2.5 Observe and interpret driver actions, behaviour and performance

The assessor should have skills to analyse and evaluate a driver's observed actions and behaviours, given the medical diagnosis and anticipated impairments of the driver.

The professional must be able to recognise when problems are potentially remediable and the individual has potential to change their actions, with or without the use of technology, so that an appropriate conclusion may be drawn and recommendations explained to the individual and the referrer.

## 2.6 Decision making

The professional should work in a precise and targeted manner, utilising their knowledge, skills and experience, as well as due liaison with treating clinician(s) to reach the correct recommendation for each individual regarding ability and fitness to drive.

This recommendation may include advice regarding vehicle adaptations, periods of driving tuition or alternative mobility solutions, should driving cessation be advised. The professional must communicate clearly how the recommendation was reached, both verbally and in writing, including the provision of professional reports.

## 3. Attitudes

## 3.1 Empathy

The professional will be required to show empathy and understanding to the individual being assessed, and where relevant, to their family/friends whilst also considering the wider population of other road users.



#### 3.2 Professionalism

The professional will understand the importance of driving to the individual being assessed, and that the outcome of the assessment is critical in terms of their future mobility and the impact it can have in relation to their physical and mental health. The professional must be able to provide an independent recommendation, acknowledging the needs of the client, which is based on evidence, taking all relevant factors into account. If the client disputes the professional's recommendation, there should be clear procedures in place for the assessment outcome to be reviewed. The professional must also be mindful of potential conflict of interest when the assessments are funded directly by the driver as a private transaction.

## 3.3 Cultural sensitivity and diversity

The professional must assess cultural factors (make sure that the level of written and oral understanding is ok) and assure the communication with a reasonable language option.

## 3.3 Engagement

The professional should have good social skills, being flexible in their approach to individuals being assessed to facilitate engagement in the driver assessment process. A respectful and confident approach is important to gain the confidence of the individual to maximise their participation in the process, and their potential to demonstrate their skills and abilities.

## 3.4 Continuous Professional Development (CPD)

The professional should engage in ongoing CPD with due educational accreditation. Consideration should be given to the development of mechanisms of audit of driver assessment practice.



## Guideline 2: Competencies of professionals undertaking driver assessment

## Introduction

The generic knowledge and skills of all professionals undertaking driver assessment is outlined in the Guideline 1: Knowledge and skills of professionals in driver assessment<sup>6</sup>.

This guideline relates to the level of competence required in line with the individual professional's background, specific to the task of driver assessment (both off- and on-road). The guideline includes the training Subgroup 1 is aware of, which is currently available in various countries and organisations. It is acknowledged there are many different professional backgrounds involved in driver assessment, and different levels of training exist to supplement the core training of professionals involved in driver assessment.

It is asserted that there should be an aspiration for a consensus on developing international generic training courses in the specialty of driver assessment, aimed at different levels, depending on the professional's background and skill set. Similar generic training and/or quality assurance is undertaken in other professional sectors. This would add rigour and assurance to the specialty of driver assessment.

This guideline provides information from members of the Fit to Drive Subgroup 1, on what is available currently, or in development, in their country or organisation. The detail of the training programmes / qualification is not included within the scope of this project; please see contact details if further information is required.

<sup>&</sup>lt;sup>6</sup> The document "Guidelines knowledge and skills of professionals in driver assessment" forms part of the annex to final summarizing report of the CIECA Fit to Drive Subgroup 1: Setting Standards for Disabled Driver Assessment (2020).

Country / Organisation	Professional background	Minimum standard / basic level professional qualification	Additional training related to driver assessment currently available	Contact details
Belgium	CARA driving and car adaptations expert	Occupational therapist Physical therapist	In house training	mark.tant@vias.be
	Medical doctor Psychologist	Professional medical qualification Professional qualification (registration)	In house training In house training	
France	Driving test examiner In rehabilitation centres: driving teacher + occupational therapist	Professional qualification Driving teacher qualification Professional qualification	INSERR vocational training	sania.bousouka@interieur.gouv.fr
Germany	Driving test examiner (only in cases of movement disabilities)  Traffic psychologist	Professional qualification  Professional psychology qualification and additional qualification in traffic psychology and "fit-to-drive-assessments"	Formal education programme  Formal education programme and in-house qualification and training	marc-philipp.waschke@vdtuev.de
Ireland	Doctor On-road driving assessor	Professional medical qualification  3 <sup>rd</sup> level qualification being developed currently	RCPI training programme in traffic medicine RCPI training programme in road safety, mobility and health	directortrafficmedicine@rcpi.ie directortrafficmedicine@rcpi.ie
Netherlands	CBR driver tester/driving examiner	CBR approved expert of fitness to drive qualification In house training re driver assessment	In house training re driver assessment 5-6 months duration CBR	helmut.van.der.smitte@cbr.nl marcel.strik@cbr.nl
Norway	Medical doctor/ ophthalmologist or optician Psychologist/ neurologist Driving examiner	Professional medical qualification/optician education Professional psychology/ neurologist qualification Examiner education	University different places in Norway  6 months education course with final exam. 2- week specialist training NU – State road authority	terje.hafell@vegvesen.no (additional training)

Scotland	Doctor	Professional medical qualification	Driving Mobility undergraduate or	lothian.scottishdrivingassessments
	Occupational therapist	BSc (Hons) in occupational therapy	postgraduate specialist training in driver assessment and outdoor mobility	ervice@nhs.net
	Physiotherapist		In house training programme Scottish Driving Assessment Service	
Spain	Doctor	General practitioner	University of Valencia/DGT, assessment course	evaldes@dgt.es
	Psychologist	Clinical health psychologist	drivers with motor disabilities for doctor.	
	Driving examiner			
Sweden	Doctor	Professional medical qualification		Karolinska University Hospital
	Occupational therapist	Professional medical qualification		Huddinge, Traffic Medicine Center cecilia.brakenhielm@sll.se
	Psychologist	Professional psychology qualification		cecina.brakerimeim@sii.se
	Driving teacher	Driving teacher qualification	½ -2 days course	
United Kingdom	Approved driving instructor (ADI)  For all ADIs - DVSA standards check test routinely (max 4 years) to ensure standards are maintained through a quality assurance process		For ADIs involved in Driving Mobility driver assessments – in-house induction and training / CPD programmes within accredited Mobility Centres.  Undergraduate or postgraduate specialist training in driver assessment and outdoor mobility	For Driving Mobility assessments: info@drivingmobility.org.uk
	Occupational therapist Physiotherapist	BSc (Hons) in occupational therapy Physiotherapist	For occupational therapists /physiotherapists/ doctors involved in Driving	
			Mobility driver assessments - academic training: undergraduate or postgraduate specialist training in driver assessment and outdoor mobility.  Network of working groups to develop and share best practice amongst UK Centres.	
	Driving test examiner: For DVSA medical appraisals (different from Driving Mobility driver assessment):	DVSA internal training programme	DVSA enhanced medical appraisal training for examiners involved in medical appraisal	gordon.witherspoon@dvsa.gov.uk

# 3.3 Guideline 3: The physical and cognitive assessment (prior to in car on-road assessment)

#### 1. Introduction

Before commencing an in-car on-road assessment of safe driving ability, a physical and cognitive assessment is conducted. This assessment includes vision, physical, neurological and cognitive abilities. However, the scope and combination of these elements depend on legal regulations, the type of disease, co-morbidities and the contextual conditions (e.g. voluntary or regulatory review).

#### 2. Vision

Recent assessment of visual function by a qualified professional is required before an attendee undertakes an on-road assessment. The timescale between undertaking the visual function test and the client attending for an on-road assessment should reflect the current clinical condition of the driver and include the following elements:

- acuity
- contrast Sensitivity
- a test of full visual field
- diplopia (double vision)
- visual inattention (may not be indicted by most ophthalmologists, but may be assessed as part of cognitive function)

If the assessor considers that there is a hitherto undetected vision problem, the assessor should seek clarification as to whether the client meets the visual requirements of the medical fitness to drive regulations of their country. This would mean the on-road driving assessment may need to be postponed and the client advised against driving until the visual element of the medical fitness to drive position is confirmed.

## 3. Physical assessment

The physical assessment is in the context of ability to operate the vehicle controls. Factors include:

- neck rotation (left and right)
- trunk rotation (left and right)
- trunk stability
- upper limb movements
- upper limb strength, including grip
- lower limb strength, including plantar flexion strength, control and accuracy of movement
- altered sensation (especially in feet and hands)
- movement co-ordination upper and lower limbs
- proprioception upper limbs and lower limbs



- fatigue in relation to the driving task, when a movement takes effort or exerts pain (lasting only for a short period due to repetitive movements) and also the impact of fatigue and exhaustion on the driver's function over a longer period of time, potentially resulting in poor driving performance
- awareness of current medications relevant to driving regulation and driving safety, for example, insulin, cannabis<sup>7</sup> derivatives anti-depressants, anti-psychotics, anxiolytics (Benzodiazepines).

## 4. Cognitive and psychological assessment

An assessment of cognitive skills in the context of functional aspects of driving should be undertaken. The purpose of undertaking a cognitive assessment is not to diagnose a cognitive issue or to predict the outcome of the on-road assessment. The cognitive assessment helps assessors to interpret observations and findings during the on-road assessment. It provides additional context. On-road assessors need to have knowledge of the main cognitive domains used for the task of driving. These are:

- attention, including alertness, selective, divided and sustained attention (also vigilance)
- visuo-perceptual skills
- decision making, including speed of processing
- working memory
- executive Function
- insight / risk awareness.

Alternative to the more 'cognitive approach', some countries focus more on 'personality related factors'. These types of psychological assessments concentrate on insight and risk awareness. The tools for psychological assessment are more likely to include a completed questionnaire to assess personality, impulsivity and/or an interview, if appropriate.

An appropriate cognitive and/or psychological assessment, communicated to the driver assessment team, with appropriate interpretation, should be made either by the referring clinical team or by the clinical team involved in the driver assessment with the appropriate skills.

There is a mixed picture in Europe with respect to cognitive and psychological assessment; some driver assessment centres or jurisdictions undertake all elements of a cognitive and psychological assessment, whilst some work in conjunction with the relevant clinical team, and communicate findings to the on-road assessment team. Please see further information on the position within Germany, Austria and Spain as Appendix 2 to this guideline.

Various cognitive testing tools and psychological approaches have been used as potential indicators of relevant cognitive issues which may present a problem with driving. Examples of these are provided in Appendix 1 to this guideline.

In general, there is agreement that specific cognitive tests are useful tools in a clinical process, however the cognitive functions or psychological concepts are far more important, which



<sup>7</sup> It is acknowledged that in most countries cannabis is an illegal drug

might be measured by different tests and approaches. In formulating a conclusion, the professional will not only report on the different cognitive functions or concepts, but also the interactions between them. Ideally, the client's psychological profile takes into account the client's full picture of strengths and weaknesses. This is valuable information for example to have an indication of the driver's compensation potential.

## 5. Guidance for the assessor related to observations / potential 'red flags' during the assessment

During the physical and cognitive assessment, the assessor should be alert to concerns or issues reported by the client that may forewarn the assessor of an underlying issue which may potentially impact on the driving task, and possibly require further investigation. This is also the case when assessors make observations related to the client's responses or behaviours. These are often referred to as 'red flags'.

Red flag issues can be difficult to define, however some examples which may lead the assessor to consider whether there may be underlying issues relating to the client's vision, locomotor function or cognition, are included in the table below. The level of dysfunction is relevant, independent of its origin. The assessor may consider these 'red flags' require further investigation by a suitably qualified professional. It is also sometimes the case that the issues are identified by an accompanying person / carer during the assessment.

## Red flag issues reported or observed

Reported or observed issues which may be red flags related to Vison			
Red flag	May be reported by Client	Likely to be observed by	
		Assessor	
Double vision	<b>✓</b>	✓? Will have to be	
		reported	
Headache	✓		
Blurred Vision	✓	✓	
Reports seeing flashes of light	<b>✓</b>		
Difficulty with peripheral vision	<b>√</b>	<b>√</b>	
Objects 'jump in and out of field of view'	✓	Check? Non systematic of	
		observation?	
Tunnel vision	✓	✓	
Eye ache /pain	✓		
Eyes twitch	<b>√</b>	<b>√</b>	
Watery eyes	<b>√</b>	<b>√</b>	
Itchy eyes	✓		
Troubled by bright light	<b>√</b>	<b>√</b>	

	es which may be red flags relate	
Red flag	May be reported by client if they have insight into the issue	Likely to be observed by Assessor
Space and time disorientation	Check?	✓
Occasional 'absences'	✓	✓
Frequently forgetful	✓	✓
Poor organisation	Check?	✓
Avoids tasks requiring sustained mental effort	Check?	<b>~</b>
Frequently loses / misplaces things	✓	✓
Frequent distraction and inattentiveness	Check?	<b>√</b>
Frequently gets lost (when driving)	✓	
Signs of sleepiness	✓	✓
Listlessness		✓
Complains of fatigue	✓	
Dizziness	✓	✓
Reports sleep disturbances	✓	
Reports low mood	✓	✓
Short attention span for reading or writing	<b>√</b>	<b>√</b>
Difficulty remembering names of objects	<b>√</b>	<b>✓</b>
Difficulty remembering people's names	✓	✓
Difficulty remembering formerly familiar people and objects	<b>√</b>	<b>✓</b>
Difficulty with time management	✓	✓
Difficulty counting money	✓	

Reported or observed issues which may be red flags related to locomotor concerns			
Red flag	May be reported by Client	Likely to be observed by	
		Assessor	
Posture and movement - for example,		✓	
the client 'bumps or knocks' into the			
door frame on the left when entering			
and exiting the assessment room			
Problems with balance	✓	✓	
Vertigo	✓	<b>✓</b>	
Difficulty dressing (fine motor skills)	✓	Check? Seatbelt?	
Frequently drops objects	✓	<b>✓</b>	
Frequent falls	✓	✓	
Bradykinesia (slowness of movement)		✓	
Tremor	Check?	✓	
Rigidity		✓	
Difficulties reaching, crouching,	<b>✓</b>	<b>√</b>	
kneeling, climbing stairs, bending			
Sensitive to touch	✓	<b>√</b>	



## Examples of cognitive tests that may be considered for use as relevant to the task of driving

The order in which these are presented does not suggest recommendation or prioritisation of one test over another, and it is accepted that other cognitive testing tools exist.

Please also note that some of these tests are merely screening tools, and that assessment as well as interpretation is to be completed only by qualified personnel.

## **MoCA Montreal cognitive assessment**

https://www.mocatest.org/

## Trail making B test

https://www.sciencedirect.com/topics/psychology/trail-making-test

## Frontal assessment battery

Dubois, B., Slachevsky, A., Litvan, I. and Pillon, B. 2000. The FAB: a frontal assessment battery at bedside. Neurology. 55(11):1621-1626. DOI: 10.1212/wnl.55.11.1621.

https://www.semanticscholar.org/paper/The-FAB%3A-A-frontal-assessment-battery-at-bedside-Dubois-Slachevsky/8e38a3fd905002db884b84aa11137eaa8e56bdf0

## Rookwood driving battery

https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Rookwood-Driving-Battery/p/100000347.html

## Useful field of view test

https://www.ncbi.nlm.nih.gov/pubmed/24642933



## Cognitive / psychological assessment in Austria, Germany and Spain

There is a mixed picture in Europe with respect to cognitive and psychological assessment; some driver assessment centres or jurisdictions undertake all elements of a cognitive and psychological assessment, whilst some work in conjunction with the relevant clinical team, and communicate findings to the on-road assessment team. Austria, Germany and Spain have specific requirements as illustrated below.

## (i) Requirements related to medical-psychological assessment in Austria

In Austria, a psychological assessment is mandatory or can be required (based on the decision of the physician coordinating the fitness to drive assessment) for certain types of disorders, such as alcohol and drug abuse, dementia, intellectual impairments and hearing impairments. The psychological assessment includes an assessment of performance dimensions and personality dimensions. Performance dimensions include observation capacity and ability to gain an overview of a traffic situation, reactive behaviour, concentration capacity, sensorymotor coordination, intelligence and memory capacities. Personality dimensions include social responsibility, self-control, emotional stability, willingness to take risks, tendency towards aggressive interaction in road traffic and emotional relation to cars. The dimensions are assessed by means of performance tests, personality tests and a personal interview. Test systems must comply with the current state of scientific research and have to be approved by the Austrian Ministry of Transport. The Vienna Test System (www.schuhfried.com) is used by all institutions carrying out psychological tests in Austria.

# (ii) Requirements related to cognitive test systems and medical-psychological assessment in Germany

It is important to note that in Germany a formal medical-psychological assessment, from a qualified traffic psychologist and traffic medicine specialist must be undertaken before the This includes a common person attends for a practical on-road driving assessment. understanding from the psychological and medical aspects, and self-evaluation of the drivingrelated risks arising from the symptoms. It is a specific interview depending on the nature of the condition and the severity of the symptoms.

Cognitive Assessment affects two legal rights: the protection of the general public from unsafe drivers, and the right of the individual to mobility. Therefore, the more test procedures are involved in a decision with legal consequences (issuing, withdrawing or extending a driving licence), the higher their quality standards should be. Consumer protection also requires transparent and fair test application. Accordingly, the recommendations of international expert commissions on quality criteria of tests, quality assurance, test application and qualification of users should be minded, too. Those keynotes are summarized among EFPA Review Model for the description and evaluation of psychological and educational tests, APA-Conventions (American Psychology Association), ITC (International Test Commission) or in local standards like COTAN (Committee on Test Affairs Netherlands) or DIN 33430. The



requirements for cognitive test systems must all be scientifically based, have proven themselves in Fitness-to-drive-contexts and have to be valid regarding to the performance behaviour to be assessed. In addition, the test must measure reliably, and it has to be objective with regard to test performance, evaluation and interpretation. The norm sample used is sufficiently large and sufficiently similar in age and gender distribution to the reference population of licence holders to allow a differentiated statement on the significance of a test value. Comprehensible documentation on these quality criteria can be found in the test manual.

Test systems that meet these standards are:

## Vienna Test System (VTS)

https://www.schuhfried.com

## Corporal Plus – Vistec AG

https://vistec-support.de

## (iii) Protocol to Assess Perceptual and Motor Skills at Drivers Check Centres in Spain

The assessment of perceptual motor skills with the tests indicated in the table below are useful suggested protocols for professionals with experience in driver assessment.

The presence of alterations in the examination orients towards a diagnosis and generally requires the consultation of a Psychologist or Psychiatrist outside the driving evaluation centre who will carry out the diagnosis.

In relation to the psychological examination carried out in Spain, it is important to bear in mind that the aforementioned examination is carried out, at the driver assessment centre, on the entire driving population and is not specifically for drivers with pathology.

Perceptual and motor skills tests used in Spain			
Variable	Test		
Space-Time perception and anticipation	TKK- 1028, classic computer-based testing:		
(Anticipation speed)	Standard test LN.Deter/Asde		
Hand-Eye Coordination	Bonnardel's B-19, classic computer-based		
(at the pace indicated)	testing: Standard test LN.Deter/Asde		
Attention and visual and hearing Perception,	Polyreactigraph, classic computer-based testing:		
Discrimination and response times	Standard test LN.Deter/Asde		
(Discriminative Multiple Reactions)			
Visuospatial intelligence	Bonnardel's B-101 and EOS's Spanish adaptation		
	of this test		



#### 3.4 Guideline 4: The in-car, on-road driver assessment

## 1. Introduction

The intention of this document is to offer a best practice guide to the high-level requirements in the context of a fitness to drive assessment. However, it is accepted that different countries will be working within their own legal framework and regulations.

Where possible and if considered appropriate, the driver would initially undertake a pre-drive assessment in an off-road environment prior to progressing onto the in-car on-road element of the driver assessment. This is because not all behaviours required for coping with driving tasks can be recorded during a driving behaviour observation, e.g. self-regulatory decisions before the start of a trip (planning and the route) or situational compensation strategies (no subsequent journeys at night).

The on-road drive would ideally take between 45 – 60 minutes and would include a large variety of different road and traffic situations as well as a section of the route, which would facilitate a period of independent driving (e.g. following signs).

The use of standardised and set driving routes offer objectivity and a clear audit trail. Instructions given throughout the drive are likely to be tailored to the approach required by the individual. However, observed driving behaviours related to the performance criteria should be explained in such a specific manner that the objectivity of data collection is ensured by a standardised recording, independent of any variability amongst observers.

Whilst consideration should be given if the driver is undertaking the assessment in an unfamiliar vehicle and potentially driving in a very different environment to those in which they habitually drive, performance must ultimately meet a safe driving standard. From a safety perspective, where possible the vehicle used for the on-road assessment should have dual controls and additional mirrors for use by the assessor. However, recognition should be given to any national / local practice or regulation regarding the use of a single or dual controlled vehicle, use of the driver's own vehicle, and the potential for more than one assessor in the car.

Where assistive technologies exist on a vehicle as standard (e.g. 360 degree reversing camera, collision mitigation brake system, road departure mitigation systems, lane keeping assist) the driver should be able to demonstrate a safe drive without reliance on such systems due to the possibility of a technical error or break-down.

If dependence on assistive technology or adaptations to the controls of a vehicle are required, the physical and/or cognitive appropriateness of the controls for the driver must be considered, as well as the legal context and licencing laws of that country. It is accepted that as technology and legislation within the context of driving continues to move forwards, this document will need future reviewing. This is a generic document and therefore cannot cover all possible scenarios or examples.

General advisory notes for the clinician / assessor to consider have been included in some sections of this document (see 'Points to consider' in grey italic text).



## 2. Physical ability to adjust the driver's seat to a functional position and operate the standard or adapted controls of the vehicle

Physical ability to adjust the driver's seat or position a wheelchair (if driving a suitably adapted vehicle from a wheelchair) into a functional and comfortable position to access all of the vehicle controls (also see Section 4 'Executive functioning' / 4:1 'Attentional skills').

## 2.1. Steering

- Suitable range of movement and strength in the limb(s) used for steering;
- Adequate grip strength in the hand(s) or the ability to grasp/steady the steering if using another limb, orthosis, or steering method;
- Ability to coordinate the limbs used for steering;
- Presence of altered sensation (e.g. extreme, or reduced sensitivity to touch);
- Speed and accuracy of steering input for the required course;
- Stability of steering control when undertaking other tasks (e.g. operating the secondary controls, changing gears, carrying out required observations);
- Ability to maintain a steady course for the duration of the drive;
- Ability to steer without operating secondary / other controls in error (e.g. trigger finger operating indicator or hand accidently leaning on an over-ring accelerator adaptation).

Points to consider: Is postural instability impacting on control, and if so, can it be improved? Is changing the method of car control, transmission type or the limbs used for driving an option? If so, would a restriction code be required on the driving licence?

## 2.2. Foot pedals (accelerator / brake / clutch)

- Suitable range of independent movement and strength in the limb(s) used (e.g. unassisted by other limbs or visual control);
- Coordination, speed and accuracy when moving between the primary controls;
- Awareness / perception as to the position of the body (proprioception);
- Fine control over the foot pedals or adapted primary controls (ability to apply the correct pressure required for the presenting road / traffic conditions) to demonstrate and sustain a smooth drive;
- Ability to operate the brake in the assessment vehicle with appropriate force in order to carry out an emergency stop. There may be some organisations who have the technology to be able to measure the actual force required to stop a vehicle of a specific load, for example using a static assessment rig; however, this would not be a common occurrence;
- Ability to fully dis-engage the clutch (this includes use of a hand operated clutch on a gear lever) in a manual transmission vehicle;
- Ability to operate the standard or adapted pedals without visual checking when driving.

Points to consider: Is the driver assisting or initiating required movement of the lower limbs with the upper limbs? Does the vehicle or seating arrangement allow the driver to achieve a functional and comfortable position to operate the foot pedals? Does the assessment vehicle have an unusually light accelerator/brake or a heavy clutch? Is the driver wearing



appropriate footwear? If limitations, would a restriction code required on the driving licence?

Regarding an emergency stop, where possible and considered safe to do so, the assessor may consider this could be carried out in a dynamic situation during the drive, at relatively slow speed, in an area with no other traffic or road users. However, the assessor should assess the risk before this manoeuvre.

## **2.3.** Gears

- Adequate range of movement, strength, and grip in the hand;
- Controlled movement to select the intended gear;
- Position sense of the upper limb when required to carry out gear changes;
- Ability to coordinate the limbs required for operation of the clutch and gears;
- Ability to operate the gearbox without visual checking (if using a manual).

Points to consider: Has the driver been given a fair period of familiarisation with the gearbox if undertaking the assessment in an unfamiliar vehicle? Are manual gear changes improving as the drive progresses or becoming more problematic? If limitations, is a restriction code required on the driving licence?

## 2.4. Parking brake

 Adequate range of movement and strength in the hand or the foot to physically operate the parking brake.

<u>Points to consider:</u> If issues are shown, would a change of transmission (manual to automatic), the type of parking brake (mechanical to electric), or another adaptation to the vehicle be required? If so, is a restriction code required on the driving licence?

## 2.5. Secondary safety critical controls (e.g. indicators, horn)

- Adequate range of movement, dexterity, fine coordination and proprioception in the limb(s) operating the secondary controls wherever they are located in the vehicle (this includes modified controls such as an infra-red secondary control system (IRC) or a bleeper system);
- Ability to operate the controls when driving without negatively impacting on other required tasks for safe driving (e.g. steering control).

Points to consider: Is the driver reliant on automation of some secondary control functions in a standard vehicle (e.g. automatic lights, wipers, etc.) due to a physical impairment? If so, would a restriction code be required on the driving licence?

## 2.6. Physical ability to carry out required observations including use of mirrors (not related to visual impairment)

- Adequate lateral rotation of the neck and the trunk to the left and the right;
- Sufficient flexion / extension in the neck to maintain adequate head position;
- Ability to compensate for any uncontrolled involuntary movement;
- Capability to compensate for neck fixed in lateral flexion (e.g. torticollis);



- Ability to rotate neck and/or trunk to the left and right at required speed for any presenting road / traffic conditions;
- Does rapid head movement trigger dizziness or vertigo?

<u>Points to consider:</u> Is pain present or exacerbated when carrying out required observations for driving, as this may influence the quality and frequency of the observations. If reduced neck rotation is present, can this be compensated for by use of the trunk? If so, would this impact on other tasks of safe driving (e.g. steering)? Would additional aids assist, such as mirrors or cameras, assisted technologies? If so, is the driver's cognition sufficient to allow transference of skills to these aids? What does the law say regarding use of these aids, are restriction codes required? If seating adaptation is required to overcome a physical issue, is it still possible to see the dashboard information (speedo etc.) and to reach the pedals; is the distance to the steering wheel still adequate?

## 3. Driving skills8

Points to consider: The driver's experience (for example, novice, experienced, professional). The clarity and timing of the verbal instruction / directions given. Be aware of the difference between an assessment situation and an instruction or tuition. An assessment does not mean that there can be no coaching, but it does not start with coaching. Feedback could be given when inadequate behaviour is observed to see whether the driver can compensate. The assessment then has a 'remediating' component and further coaching might be part of the recommendation.

## 3.1. Road position

The ability to position the vehicle safely and correctly in relation to the road layout and the road markings:

- Holding a straight course and when negotiating bends at variable speeds;
- Demonstrating correct position on the roadway when no road markings are present;
- Negotiating intersections / junctions (e.g. stopping correctly behind Give Way or Stop road signs and markings);
- Preparing to turn left and right;
- Maintaining correct position throughout the junction (e.g. roundabouts, which may require combined use of steering and secondary controls);
- Allowing safe clearance (is appropriate space given to the front, rear or either side of the vehicle when negotiating stationary or moving hazards?);
- Maintaining correct position within traffic lanes.

## 3.2. Driving strategy and attitude

- Adapting speed and/or driving position for the presenting weather and road traffic conditions;
- Demonstrating appropriate social interaction;

<sup>&</sup>lt;sup>8</sup> EU Driving Licence Directive 2006/126/EC. Annex II. II Knowledge, skills & behaviour for driving a power-driven vehicle. L403/46. [http://eur-lex.europa.eu/]. Accessed 14 January 2021.



- Dealing with vulnerable road users such as pedestrians, cyclists, etc.;
- Approach to changing the driving lane and merging with traffic;
- Showing awareness of limits: personal, physical, behavioural, psychological, the vehicle (e.g. choosing not to drive on the motorway, in the dark, in bad weather, busy times, unfamiliar vehicle, inappropriate transmission type, taking regular breaks to manage fatigue, etc.);
- Defensive driving techniques that allow the driver to anticipate hazardous situations and take avoiding action;
- Adapting driving style to the personal situation (Is there a discrepancy between the drivers' behaviour and style, and the driver's possibilities?);
- To have an overview, understanding, anticipation of the traffic situation;
- Appreciating the driving situation (e.g. when a certain speed is allowed, it might not be safe to attain that speed).

## 3.3. Visuo-perceptual skills

- Estimating the dimensions of the vehicle (considering that the driver is perhaps not driving the habitual vehicle);
- Estimating dimensions of the roadway;
- Recognising and reacting appropriately to road signs and road markings;
- Comprehending the road layout and presenting traffic situation (for example, giving priority where appropriate);
- Ability to search for hazards systematically and continuously (visual scanning);
- Ability to focus on a moving hazard without a negative influence on traffic participation (visual tracking);
- Judging speed and distance (own and other road users, particularly when negotiating junctions);
- Correctly evaluating the safety margin;
- Correctly interpreting visual information from the mirrors;
- Sensing vibration of the vehicle (haptic feedback);
- Compensate for any visual disturbances on head and/or eye movement (e.g. blurred vision when undertaking left and right checks).

#### 4. Executive function

The umbrella term 'executive function' is used to describe a number of top-down control processes that allow us to regulate our thoughts and behaviour by managing incoming sensory information, directing attention allocation, and selecting behavioural responses9.

## 4.1. Attentional skills

- Attending to achieving a functional position for driving (e.g. adjusting the seat and the driving mirrors);
- Ability to maintain attention to the task for the duration of the assessment;

<sup>&</sup>lt;sup>9</sup> Walshe, E.A., Ward McIntosh, C., Romer, D. and Winston F.K. 2017. Executive Function Capacities, Negative Driving Behaviour and Crashes in Young Drivers. International Journal of Environmental Research & Public Health. 14(11):1314. DOI: 10.3390/ijerph14111314.



- Ability to divide and prioritise attention to multiple hazards / stimuli presented;
- Managing distraction whilst driving from in-car systems such as satellite navigation (Sat Nav), radio, warning lights, audible alarms, taking part in conversation, etc. by making strategic choices (e.g. stopping conversation in case of difficulty);
- Coping in poor visibility conditions such as driving at night and possibly in poor weather conditions whereby visibility is affected outside the vehicle and may be worsened by headlight dazzle;
- Ability to operate the vehicle controls (including secondary controls) when driving at night or other suboptimal conditions (stress, weather, etc.).

## 4.2. Memory aspects

- Ability to follow and recall new information (e.g. is there is potential for the driver to use an alternative method of control, if required);
- Ability to retain instruction when driving (e.g. visual instructions from road signs and road markings);
- Recall previous experience in relation to problem solving untypical road and traffic situations (e.g. how to cope if traffic lights are not working).

Points to consider: If the driver becomes disorientated regarding the required route, is safety maintained? Can the driver return safely to route, either independently or by asking the assessor to repeat the instructions?

## 4.3. Planning

- Ability to respond proactively to potential hazards;
- Ability to execute actions in the correct sequence in order to maintain driving fluidity and road safety;
- Ability to act in an appropriate way, responding to factors in unknown and unforeseen situations;
- Ability to plan and execute the drive during part of the assessment route; this could be assessed by including an element of independent driving, where the driver is asked to follow directions to a named place and drive independently to the destination. This would be for a short period of time – in the region of 5 - 10 minutes.

## 4.4. Speed of processing

- Ability to process information from surroundings, analyse, anticipate and respond appropriately when driving, particularly when driving at faster speeds or under difficult situations (double tasks);
- Appropriate speed of decision making.

## 4.5. Behaviour in traffic

- Ability to be flexible and adapt to unexpected events;
- Behaviour / attitude towards other road users (e.g. aggressive driving);
- Following instructions and driving in accordance with the law or local traffic situation;
- Managing / stabilising emotion when driving (e.g. scared, confused, angry, elated);
- Maintaining reasonable progress;



- Facilitating other road users where appropriate (e.g. merge in-turn when two lanes become one) to aid congested traffic situations;
- Communication with other road users: ability to understand verbal communication (aphasia), ability to understand non-verbal communication (road signs), ability to 'read' the traffic situation (e.g. when the presenting situation does not permit the legal driving speed);
- Appreciating the evaluation situation. For example, if the driver is not able to adapt their driving behaviour which is unlawful (e.g. continuing to exceed legal speed limits) this could be interpreted as being inadequate.

## 5. Methods of evaluating the on-road drive and reaching an outcome

Observed driving behaviour is evaluated against comprehensive guidelines which highlight the number of, and severity of the errors shown during the drive. Positive and negative thresholds are set within the guidelines, which also includes termination criteria. For example:

- A significant traffic violation which clearly shows a complete misinterpretation of the presenting road / traffic situation (e.g. a red traffic light violation in good visibility conditions);
- Signs of acute dysfunction (e.g. under the influence of drugs or alcohol);
- Intervention by the driving assessor to maintain safety;
- There is danger to other road users.

The results of the on-road-drive are summarized in a report which includes the extent of preparation (e.g. relevant medical history, presentation and driving history), a description of the conditions on the day of assessment (e.g. vehicle used, weather conditions, assessment team, route, etc.), the frequency and the nature of any anomalies (lapses, violations, errors, other traffic conflicts) and the final result of either positive, negative or restrictions. If the assessment drive needed to be terminated before the end of its defined duration, the reasons for this must be described qualitatively.

The findings of the on-road drive should be considered in relation to the impact of the clinical features of the driver's medical condition or disability (described in document 3 Guidelines relating to the pre- on-road physical and cognitive assessment) to effectively carry out required driving functions (as detailed in Section 4). It is also important to consider document 5 Guidelines on reaching a recommendation.

The FTD Subgroup acknowledges there are some countries / organisations who have well developed on-road driver assessment protocols; good examples of these include CBR in the Netherlands<sup>10</sup>, Vias institute in Belgium<sup>11</sup>, and Driving Mobility in the UK<sup>12</sup>. Further information on these protocols may be obtained by contacting the relevant organisations. The FTD Subgroup recognises that there are other on road assessment protocols in existence and members are encouraged to share this information to add to the ongoing wider development of the specialty.

<sup>&</sup>lt;sup>12</sup> Driving Mobility, UK. 2017. Operational manual standardisation on in-car assessment recording.



<sup>&</sup>lt;sup>10</sup> CBR, The Netherlands. 2020. The on-road assessment for practical driver fitness in the Netherlands.

<sup>&</sup>lt;sup>11</sup> Vias institute, Belgium. 2019. Practical fitness to drive assessment.

#### 3.5 Guideline 5: How to reach a recommendation

Guidelines for the assessor when matching the findings of the on-road assessment with the physical and cognitive assessment in order to reach a recommendation / opinion

#### Introduction

Before attending for an on-road driver assessment, the driver should be considered as having no medical contraindication to drive, that is, have had relevant conditions excluded, for example, low vision, seizures, by the appropriate physician.

The evidence from the "off-road" assessment (the non-driving part of the assessment, carried out in clinics), and the on-road assessment, will inform the assessor's opinion as to whether the person's medical condition or disability is impacting on their ability to drive.

This guideline provides further guidance to support assessors when reaching an opinion / recommendation and closely links with the guidelines on high-level knowledge and skills of assessors, the off-road drive and the on-road drive.

The following are examples of common recommendations following an on-road assessment.

- The driver is recommended as being fit to drive with, or without vehicle adaptations.
- In the case of learner drivers (provisional licence holders<sup>14</sup>) the driver is recommended as being fit to undertake a course of tuition leading to the standard driving test. This may be with, or without vehicle adaptations.
- The driver is recommended to return for review on-road assessment following a period of driving familiarisation<sup>15</sup>, either with, or without vehicle adaptations. A final recommendation is made following review.
- In the interests of road safety, the driver is recommended not to drive and surrender their driving licence entitlement under medical fitness to drive legislation.

The following factors are indicators to guide the assessor(s) when reaching a recommendation / opinion:

## 1. Prognosis

Is there potential for the driver's condition to improve, for example, in the case of functional recovery following stroke, or is the condition one which is likely to fluctuate or even deteriorate, for example, in the case of multiple sclerosis or degenerative conditions such as dementia and motor neurone disease?



<sup>13</sup> Off-road assessment is an agreed term for pre-on road assessment and it can be carried out in a clinical set up and does not have to be in a real traffic situations.

<sup>&</sup>lt;sup>14</sup> Applies to countries where the concept of provision driving licence exists.

<sup>&</sup>lt;sup>15</sup> In some countries the term "driving tuition" is also used.

## 2. Problems identified during the on-road assessment

Are the difficulties exhibited during the on-road assessment reflective of the person's medical condition or disability? If so, is there potential for adaptation or restriction of the driving situation 16 to the driver's disability? Where applicable, does the driver have the insight, ability and potential to adapt to a new method of control? Can the issues be overcome by vehicle adaptations, a different method of vehicle control, avoiding some driving situations<sup>16</sup>, or by driver tuition? In this case, does the driver need to return for follow up assessment to inform a final recommendation? If vehicle adaptations are recommended as essential for the driver's safe control of the vehicle, or when the driving situations allowed are limited<sup>16</sup> (e.g. no driving on highway or within a limited radius), the appropriate driver licence code should be advised. This is required by legislation, for a driving licensing authority to allocate an appropriate restriction code in the driver's driving licence.

Consider if there is a pattern (repetition) of driving errors, as opposed to an isolated occurrence, which may be due to nervousness. This may warrant further review assessments – subject to driver meeting medical standards for fitness to drive standards.

## 3. Driving style

If the problems identified on the drive are not reflective of the driver's medical condition or disability, consider whether they are due to inappropriate driving habits acquired over time. If this is the case, the assessor may suggest that the driver has some driver tuition to remediate inappropriate driving habits and returns for follow up on-road assessment. This is important to emphasise that such problems identified by the assessors may not, or not only, be related to medical fitness to drive standards and very likely to be related to "driver competence". However, an unsatisfactory competence level, or maladaptive driving style could interfere with compensational possibilities. Consider an 'offensive' driving style. Although less appropriate for any driver, it is very contra-indicated for a driver suffering from slowed speed of information processing. In this case, there is a clear mismatch between driving style and the medical possibilities of the potential driver. Changing of driving habit could be a prerequisite of a positive FTD opinion.

The driver's insight into their driving style and whether they are able to adapt / change their driving habits is important.

## 4. The presence of co-existing conditions

Consider the presenting diagnosis, and also any co-existing conditions, for example, the reason for assessment may be due to a diagnosis of an arthritic condition, however the driver may present with a precipitation of a dementia, or general frailty due to the ageing process.

## 5. Impact of social factors which may affect the driver

Consider whether the medical condition and driver performance may be affected by current social issues, such as bereavement, carer responsibilities, which could potentially impact on the driver's cognition and performance.

<sup>16</sup> Driver licence legislation allows for this type of driving licence restriction in some countries, but not in all.



Further, close social contacts and support, for example, support and monitoring from family and friends, as compared to someone who lives on his own, might be a factor when considering a fitness to drive opinion: A driver with support may be more inclined to accept fitness to drive advice.

## 6. Anxiety

Consider if driver's behaviour during the assessment is anxiety due to the assessment situation. Alternatively, establish if the anxiety itself is actually a medical condition which may impact on the task of driving more generally. Consider that current 'normal' driving situations might also be stressful and that adequate coping strategies are necessary.

## 7. Previous driving history

Consider the length and the driving experience of the driver, for example to be able to drive in all types of roads and driving situations including night-time driving. Is the driver very experienced, for example, drove most days before he/she sustained their medical condition, or is he/she a novice driver, who, for example, may have only recently passed his/her driving test, or has no driving experience at all? The level of driver performance expected in each case would differ.

Consider if there has been a break in driving, for example, the client may not have driven since their illness, in which case they may benefit from some familiarisation lessons to regain confidence in their driving.

## 8. Background information from family members and other relevant individuals

Acknowledge, and be sensitive to the concerns from family members, taking into account if the same issues are evident during the on-road drive. This could also include information provided by other health professionals as part of the referral documentation. Although this type of information might well be very useful, it still needs to be handled with caution in order to maintain independent unbiased assessment from a driving assessor as a professional.

Examples of this may include:

- relatives reporting that they feel the need to alert the driver to situations and hazards on the road, as in acting as a co-pilot (directing the driver and alerting to potential hazards);
- reports on the driver becoming confused, or lost in familiar road situations;
- recent accident history, has there been an increase in accidents/bumps, which may be attributed to the driver's medical condition?

The assessor should also be aware that the passenger / family member may consider their relative's driving is good, and they may be unaware that it has become routine behaviour for the passenger to provide direction and support. This may be due to:

- the passenger/family member being a poor judge of their relative's driving ability;
- the passenger/family member providing excessive direction and support unwittingly;
- there is also the possibility that the relatives' views and opinions may be biased.



## 9. Driver assessment for the learner driver who has not yet undertaken tuition

The assessor should consider whether the presenting medical condition or disability of the client relates to a physical, cognitive, intellectual or learning disability, or a combination of factors. It may be necessary for the learner driver to apply for a provisional driving licence 17 before undertaking a driver assessment. When applying for a provisional licence, the driver should declare their medical condition or disability.

The assessment criteria in the clinical pre-drive assessment will be the same as those for an experienced driver, and it should be confirmed that the driver is medically fit to drive.

The on-road element of the drive will be very limited, and in some cases will be similar to that of a first-time driver lesson; however the assessor will be assessing whether the potential driver has the physical ability to drive a standard vehicle, or whether an automatic or suitably adapted vehicle is necessary. Following an initial assessment, it may be appropriate for the learner driver to have a period of tuition and then return for review of on-road assessment.<sup>18</sup>

In the case of clients with a learning or intellectual disability, it may be difficult to reach an opinion during the driver assessment as to the driver's potential to achieve driving test standard. In these cases, the assessor may consider recommending that the driver has a course of driving lessons with an Approved Driving Instructor / Teacher and then return for follow up to review progress. The communication between the clinical assessor and the Approved Driving Instructor / Teacher and the client is very important. A flexible approach is necessary, as described in the High-Level Knowledge and Skills Document (Ref 1.7 Intellectual / Learning Disability).

#### NB:

In Germany and Austria, a medical-psychological assessment is performed regarding drivers who are considered to have a risk profile.



<sup>&</sup>lt;sup>17</sup> Applies to countries where the system of provision driving licence exists.

<sup>&</sup>lt;sup>18</sup> Germany: no provisional driving licence.

#### 3.6 Guideline 6: Legal aspects following the driver assessment outcome

Guidelines for the assessor when considering the legal implications of their assessment outcome recommendation

#### 1. Introduction

When the assessor reaches a recommendation following their client's driver assessment, it is accepted that the information should be delivered in a sensitive way, with the understanding of the impact on the individual's lifestyle.

The authorization to communicate findings and results must be secured by the legal situation. For EU countries, data protection in accordance with the EU Basic Data Protection Regulation has been binding. This regulation strengthens the rights of so-called "data subjects" by extending information obligations, more rights of access, deletion obligations for companies and the notification process in the event of data breaches. The requirements on data protection (storage, disclosure, use of content) must be complied with legal obligations.

However, the assessor should be aware that the assessment outcome may have legal implications for the client. Assessors who directly represent the driving licence authority have a special responsibility here.

The driving assessor should be aware of the importance of recording and documenting the evidence for their assessment opinion and recommendation. This is important should the medical fitness to drive decision of the driving licence authority be legally challenged.

## 2. If the client is advised to stop driving

The assessor should advise the client of their obligation as a licence holder to inform the relevant driving licence authority that they have been advised to cease driving and surrender their driving licence.

The assessor should consider their own professional position, as a duty of care, to notify the most effective and permissible authorities, which may include the driving licence authority, if there is evidence that the driver will not, or is unable to, inform the relevant driving licence authority. If the assessor is an agent of, or arranged by, the driving licence authority, this assessor should report appropriately.

If there is potential for the driver's medical condition or health to change, the assessor should be aware of the procedure the driver may follow to re-apply for licence re-instatement at a future time. The assessor should advise the client to discuss any future driving licence reapplication with their medical practitioner or health care providers.



## 3. Driver licensing coding

With the Commission Directive (EU) 2015/653 of 24 April 2015 amending Directive 2006/126/EC of the European Parliament and of the Council on driving licences the codes and subcodes of Annex I were updated.

The following reasons were given by the Commission, for example:

"(1) The codes and sub-codes set out in Annex I to Directive 2006/126/EC should be updated in the light of technical and scientific progress, especially in the field of vehicle adaptations and technical support for drivers with disabilities."19

"(2) To take into account new technological developments, the codes and sub-codes should be function-oriented. For reasons of administrative simplification some codes should also be deleted, merged with other code or shortened."19

With Article 2 of the Commission Directive (EU) 2015/653 of 24. April 2015 the Commission formulated that "Member state shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 1 January 2017 at the latest. They shall forthwith communicate to the Commission the text of those provisions."<sup>20</sup>

However, there is little guidance on the interpretation of the codes, and the application varies between organisations involved in driver assessment. Further work regarding consistency of interpretation and application of codes may be a recommendation within relevant driver licencing authorities, driver assessment organisations and driver testing authorities.

Depending on the existing situation the assessor should advise the client about the requirement for specific adaptation codes to be added to their driving licence, if this is necessary following their assessment. Clients are likely to require guidance on the appropriate coding, and also the process to enable this to happen. In some cases, it may be helpful to advise the client to return their driving licence, with a copy of the driver assessment report, to the relevant licencing authority, with the recommended adaptation codes.

## 4. Vehicle insurance

The assessor should advise the client of the importance of keeping their insurance policy up to date regarding existing medical conditions, or the development of new medical conditions. This also applies to modifications to the vehicle.



<sup>&</sup>lt;sup>19</sup> Directive (EU) 2015/653 of 24 April 2015, page 1.

<sup>&</sup>lt;sup>20</sup> Directive (EU) 2015/653 of 24 April 2015, page 2.