Cognitively At-Risk Drivers: The Role of the MVA

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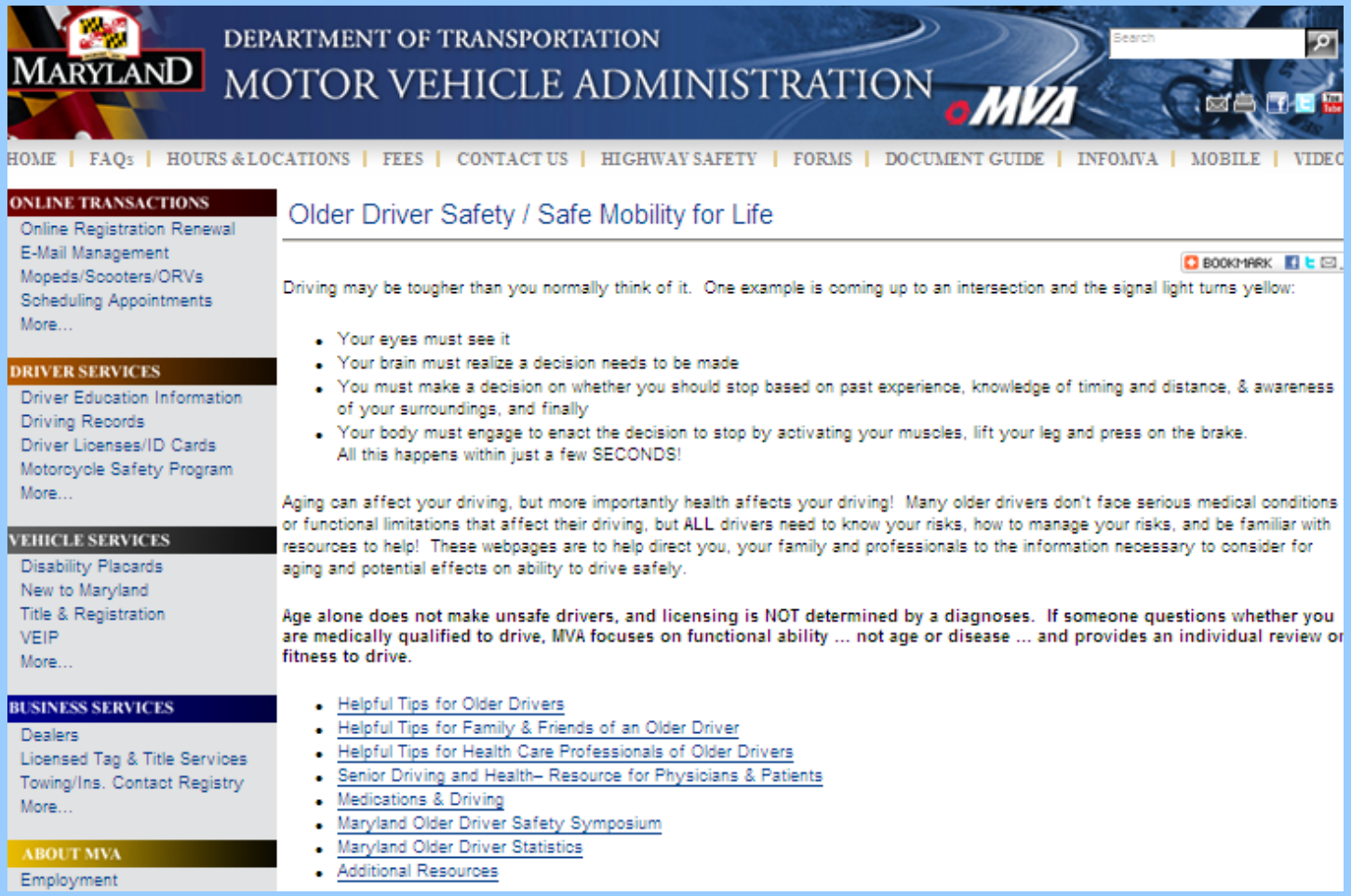
MVA Older Driver Safety



DEPARTMENT OF TRANSPORTATION
MOTOR VEHICLE ADMINISTRATION

HOME | FAQs | HOURS & LOCATIONS | FEES | CONTACT US | HIGHWAY SAFETY | FORMS | DOCUMENT GUIDE | INFOMVA | MOBILE | VIDEO

ONLINE TRANSACTIONS
- Online Registration Renewal
- E-Mail Management
- Mopeds/Scooters/ORVs
- Scheduling Appointments
- More...

DRIVER SERVICES
- Driver Education Information
- Driving Records
- Driver Licenses/ID Cards
- Motorcycle Safety Program
- More...

VEHICLE SERVICES
- Disability Placards
- New to Maryland
- Title & Registration
- VEIP
- More...

BUSINESS SERVICES
- Dealers
- Licensed Tag & Title Services
- Towing/Ins. Contact Registry
- More...

ABOUT MVA
- Employment

Older Driver Safety / Safe Mobility for Life

BOOKMARK

Driving may be tougher than you normally think of it. One example is coming up to an intersection and the signal light turns yellow:

- Your eyes must see it
- Your brain must realize a decision needs to be made
- You must make a decision on whether you should stop based on past experience, knowledge of timing and distance, & awareness of your surroundings, and finally
- Your body must engage to enact the decision to stop by activating your muscles, lift your leg and press on the brake.
  All this happens within just a few SECONDS!

Aging can affect your driving, but more importantly health affects your driving! Many older drivers don't face serious medical conditions or functional limitations that affect their driving, but ALL drivers need to know your risks, how to manage your risks, and be familiar with resources to help! These webpages are to help direct you, your family and professionals to the information necessary to consider for aging and potential effects on ability to drive safely.

Age alone does not make unsafe drivers, and licensing is NOT determined by a diagnoses. If someone questions whether you are medically qualified to drive, MVA focuses on functional ability ... not age or disease ... and provides an individual review or fitness to drive.

- Helpful Tips for Older Drivers
- Helpful Tips for Family & Friends of an Older Driver
- Helpful Tips for Health Care Professionals of Older Drivers
- Senior Driving and Health– Resource for Physicians & Patients
- Medications & Driving
- Maryland Older Driver Safety Symposium
- Maryland Older Driver Statistics
- Additional Resources

Learning Objectives

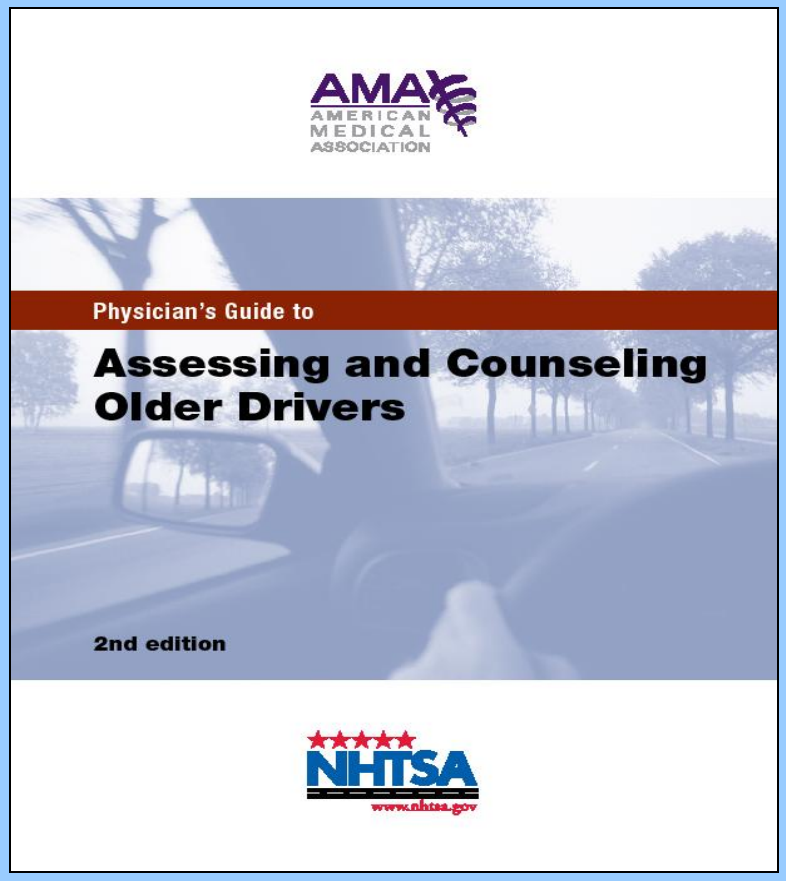
- Referral of drivers to the Maryland MVA
- Role of the Medical Advisory Board
- Fitness to Drive evaluation of a client
- Driving risk in clients with dementia

Most Older Drivers are Safe & Responsible

- Avoid heavy traffic
- Avoid bad weather
- Avoid nighttime and freeway driving
- Map out safe routes to routine destinations
- Look for routes with right turns

Marottolli RA, et al: *J Gerontology* 1993;48:8255-8260

Physician's Guide to Assessing and Counseling Older Drivers



AMA REPORT OF COUNCIL ON ETHICAL & JUDICIAL AFFAIRS

E.2.24 Impaired Drivers and Their Physicians

1. Physicians should assess patients' physical or mental impairments that might adversely affect driving.
   - Each case must be evaluated individually
   - Must be able to document impairment
   - Must pose a clear risk to public safety

Dec, 1999

http://www.ama-assn.org/ama/pub/category/8464.html

AMA REPORT OF COUNCIL ON ETHICAL & JUDICIAL AFFAIRS

E.2.24 Impaired Drivers and Their Physicians

2. Before reporting
   - Tactful but candid discussion with the pt. & family about the risks of driving.
   - Physician may suggest treatment (ex: occupational therapy, substance abuse treatment)
   - Encourage pt. & family on restricted driving
   - Negotiate a workable plan

Dec, 1999
http://www.ama-assn.org/ama/pub/category/8464.html

AMA REPORT OF COUNCIL ON ETHICAL & JUDICIAL AFFAIRS

E.2.24 Impaired Drivers and Their Physicians

3. When advice to discontinue driving is ignored, it is desirable & ethical to notify the DMV.
4. The physician's role is to report medical conditions as dictated by his or her state's mandatory reporting laws and standards of practice.
5. Physicians should disclose and explain to their patients this responsibility to report.
6. Protect patient confidentiality.

Dec, 1999

http://www.ama-assn.org/ama/pub/category/8464.html

Reporting Obligations for Maryland

Q1. What is the legal obligation of a Clinician to report (refer is a better word) a medically impaired driver to the MVA?

A1. None

Q2. What are Drivers obligated to report to the MVA?

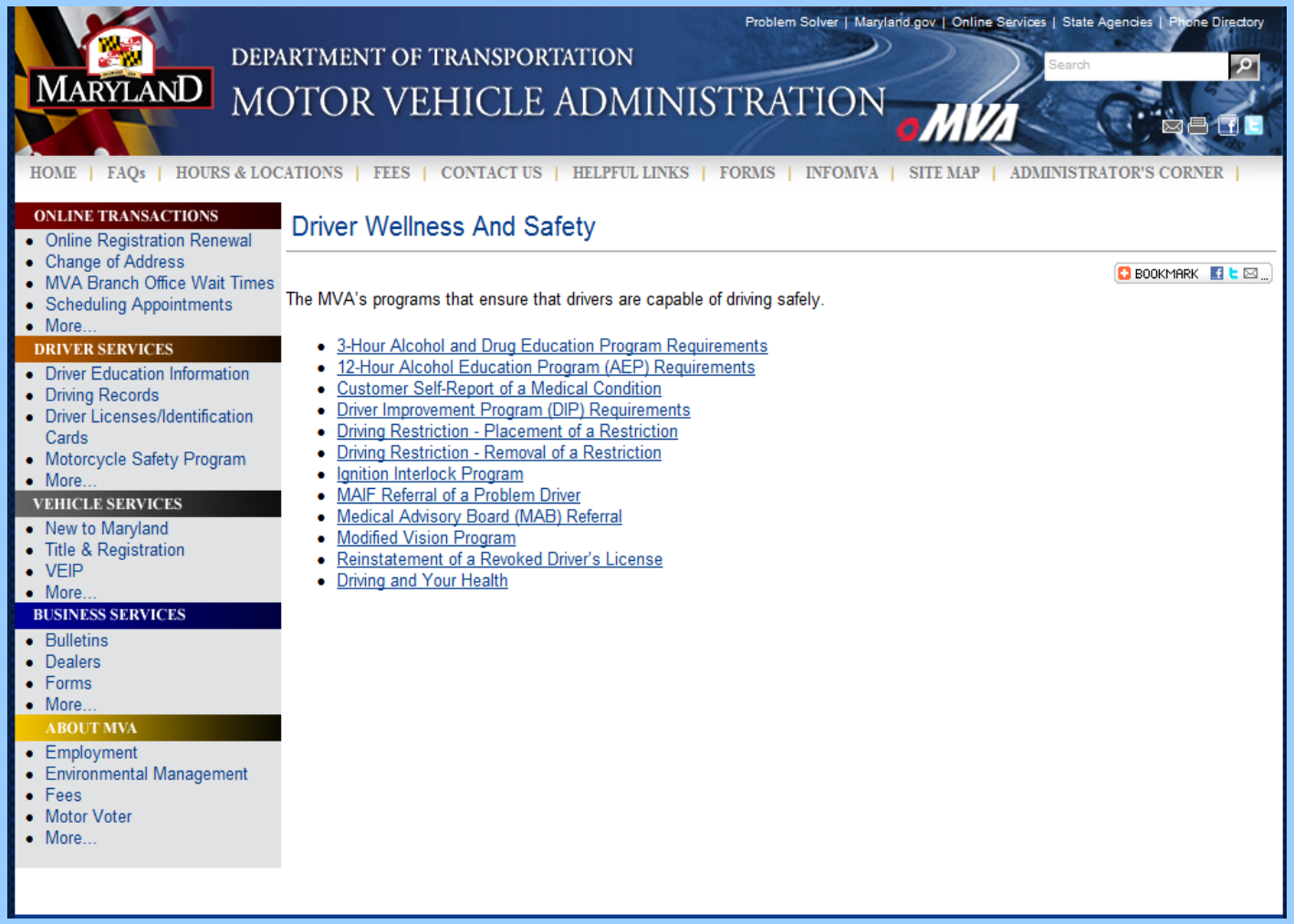
A2. Disclose reportable conditions upon application and at renewal.

Maryland Reportable Conditions

- Cerebral Palsy
- Diabetes (insulin)
- Epilepsy
- Multiple Sclerosis
- Muscular Dystrophy
- Irregular heart rhythm or heart condition
- Stroke/TIA
- Alcohol dependence or abuse
- Drug dependence or abuse
- Loss of Limb(s)
- Traumatic brain injury
- Schizophrenic disorders
- Panic attack disorder
- LOC/ Seizure/Blackout
- Disorder which prevents a corrected minimum visual acuity of 20/70 or a field of vision of at least 110 degrees
- Bipolar disorder
- Parkinson's Disease
- Dementia
- Sleep disorder (ex. narcolepsy, sleep apnea)
- Autism

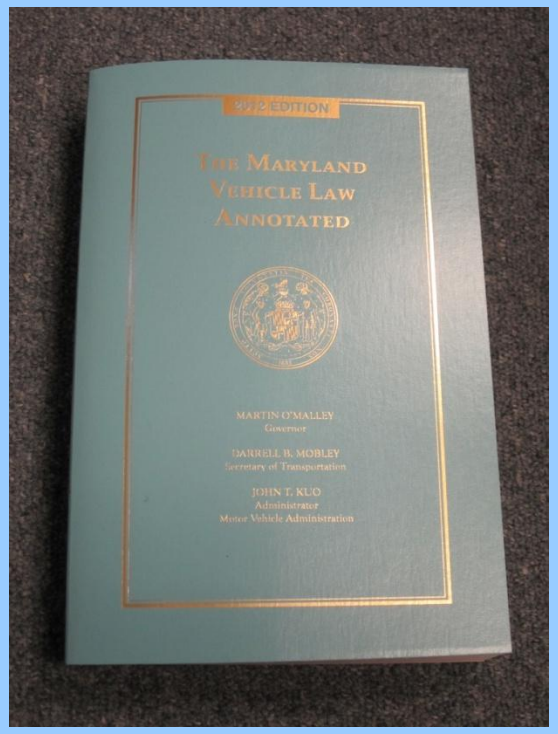
Require Physician Report and Health Questionnaire

MVA Driver Wellness and Safety



MVA Driver Wellness Philosophy : Safe Mobility for Life

- Safe Mobility for life of client and other users of roadways.
- Drive for as long as safe.
- Consider each driver on a case-by-case basis.
- This is accomplished by medical assessments, re-education &rehabilitation training programs.



Medical Advisory Board

(a) "The Administrator may appoint a Medical Advisory Board…

(c) "The Administrator may refer to the Medical Advisory Board, for an *advisory opinion*, the case of any licensee or applicant for a license, if the Administrator has good cause to believe that the driving of a vehicle by him would be contrary to public safety and welfare because of an existing or suspected mental or physical disability."

Paths to Driver Wellness

- Self report-apply or renew
- MVA Counter referrals
- Report from a clinician
- Concerned citizen report
- Police referrals- RRE
- Court referrals- DUI/DWI

Clinician Letters to MVA

Mr. X has been a patient of mine for 15 years. He has a history of Parkinson's disease with very significant physical and mental impairments. The impairments are such that I feel strongly that he should not be driving.

Mrs. M has recently been diagnosed with Dementia and I have concerns regarding her ability to drive. Please evaluate her ability to drive safely.

Concerned Citizen Letter

Maryland MVA:

My sisters and I are concerned about the driving ability of our father. He has been in a couple of car crashes and he has many medical problems. We would like to remain anonymous.

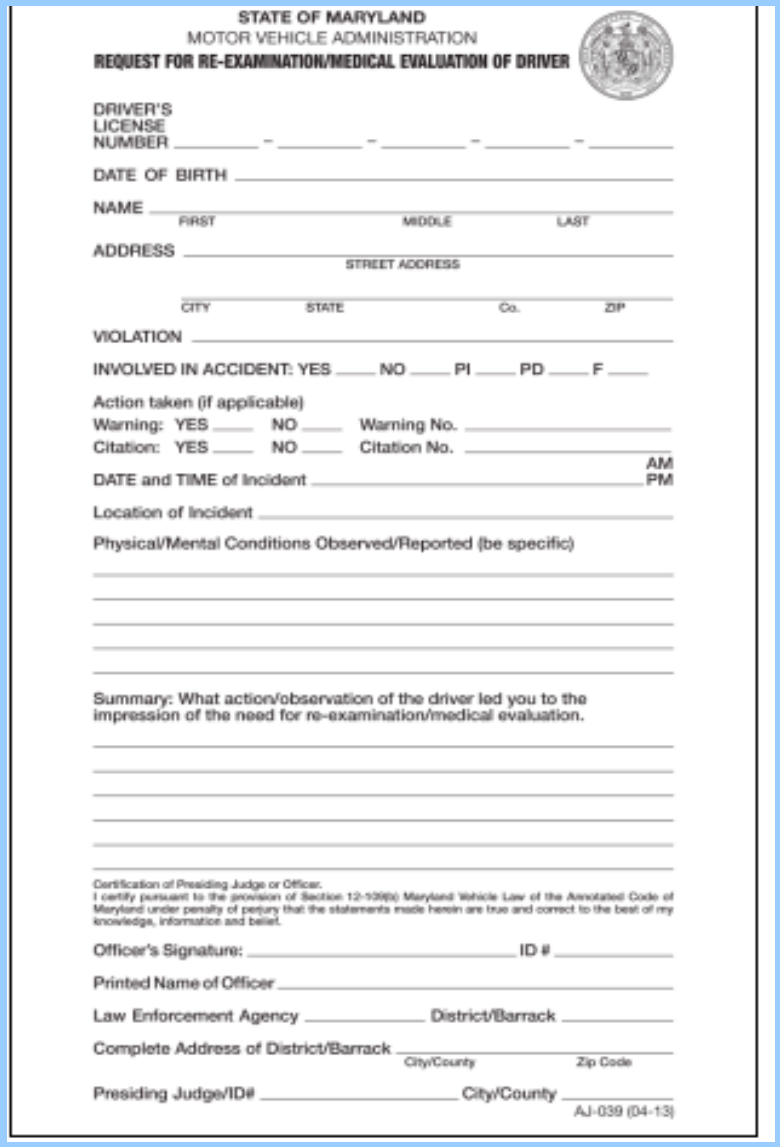
*These letters prompt an MVA field investigation to verify concerns.

Hypothetical

Request for Re-examination :

Was observed driving below speed and swerving in lane.

Seemed confused when I stopped him.



STATE OF MARYLAND
MOTOR VEHICLE ADMINISTRATION
REQUEST FOR RE-EXAMINATION/MEDICAL EVALUATION OF DRIVER

DRIVER'S LICENSE NUMBER _____ – _____ – _____ – _____ – _____

DATE OF BIRTH _____

NAME _____
FIRST MIDDLE LAST

ADDRESS _____
STREET ADDRESS

_____
CITY STATE Co. ZIP

VIOLATION _____

INVOLVED IN ACCIDENT: YES ____ NO ____ PI ____ PD ____ F ____

Action taken (if applicable)
Warning: YES ____ NO ____ Warning No. _____
Citation: YES ____ NO ____ Citation No. _____

DATE and TIME of Incident _____ AM PM

Location of Incident _____

Physical/Mental Conditions Observed/Reported (be specific)

Summary: What action/observation of the driver led you to the impression of the need for re-examination/medical evaluation.

Certification of Presiding Judge or Officer.
I certify pursuant to the provision of Section 12-109(b) Maryland Vehicle Law of the Annotated Code of Maryland under penalty of perjury that the statements made herein are true and correct to the best of my knowledge, information and belief.

Officer's Signature: _____ ID # _____

Printed Name of Officer _____

Law Enforcement Agency _____ District/Barrack _____

Complete Address of District/Barrack _____
City/County Zip Code

Presiding Judge/ID# _____ City/County _____

AJ-039 (04-13)

MVA Evaluation

- Client is assigned a nurse case manager.
- Client submits a medical report and health questionnaire.
- Case may be reviewed by the MAB. Majority of cases are done as “ paper cases”. If additional information is needed, the client may be interviewed.
- Further evaluation- FCT and/or a MVA drive test may be requested.

Medical History

An opportunity to focus on the client's self awareness/insight and judgment. These are difficult to assess with cognitive testing.

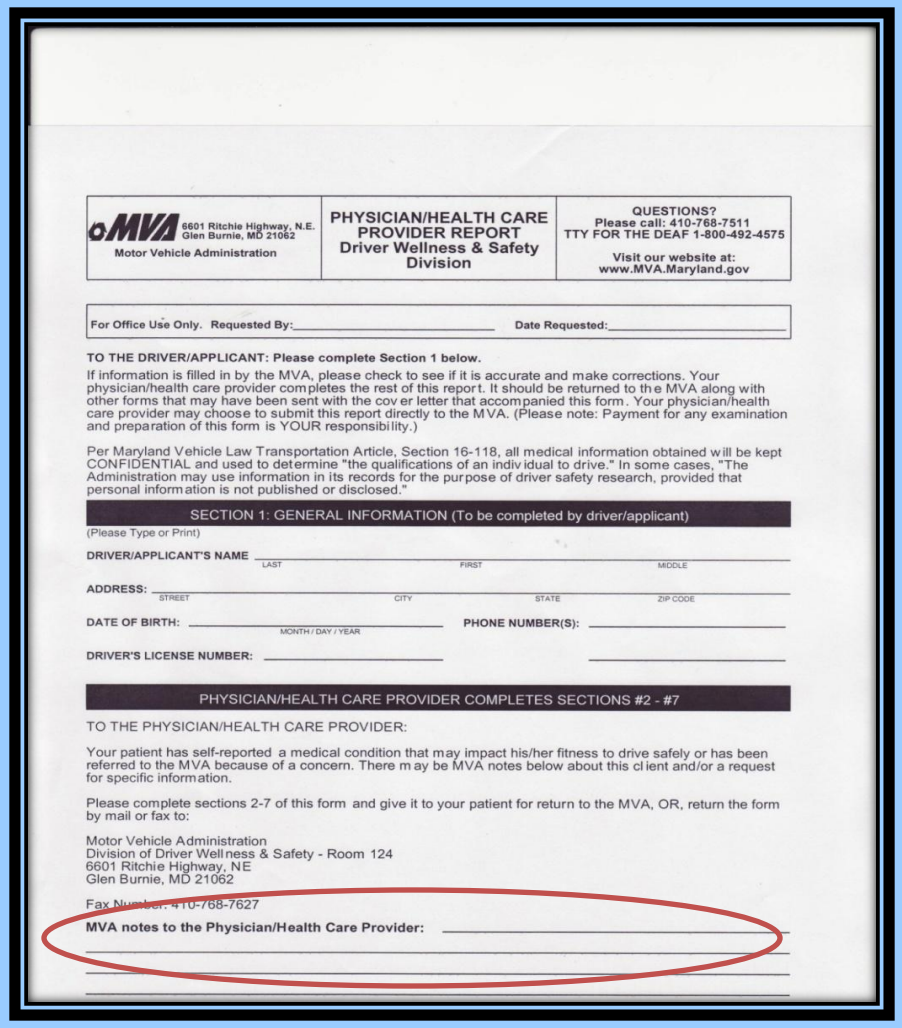
Medical History

- Client and/or family members have concerns
- History of falls
- Alcohol/substance abuse
- Trips take longer than usual when driving alone
- Client has gotten lost while driving
- Reports of family “copiloting”

Medical History

- Any history of a traffic encounter with the police (regardless if a citation was issued)
- Has been involved in a crash or fender bender
- Drive at inappropriate speeds; fail to observe traffic signs and signals
- MVA has requested information/evaluation

Physician/Health Care Provider Report



6601 Ritchie Highway, N.E.
Glen Burnie, MD 21062
Motor Vehicle Administration

PHYSICIAN/HEALTH CARE PROVIDER REPORT
Driver Wellness & Safety Division

QUESTIONS?
Please call: 410-768-7511
TTY FOR THE DEAF 1-800-492-4575

Visit our website at:
www.MVA.Maryland.gov

For Office Use Only. Requested By:_____ **Date Requested:**_____

TO THE DRIVER/APPLICANT: Please complete Section 1 below.

If information is filled in by the MVA, please check to see if it is accurate and make corrections. Your physician/health care provider completes the rest of this report. It should be returned to the MVA along with other forms that may have been sent with the cover letter that accompanied this form. Your physician/health care provider may choose to submit this report directly to the MVA. (Please note: Payment for any examination and preparation of this form is YOUR responsibility.)

Per Maryland Vehicle Law Transportation Article, Section 16-118, all medical information obtained will be kept CONFIDENTIAL and used to determine "the qualifications of an individual to drive." In some cases, "The Administration may use information in its records for the purpose of driver safety research, provided that personal information is not published or disclosed."

SECTION 1: GENERAL INFORMATION (To be completed by driver/applicant)

(Please Type or Print)

DRIVER/APPLICANT'S NAME _____
LAST FIRST MIDDLE

ADDRESS: _____
STREET CITY STATE ZIP CODE

DATE OF BIRTH: _____ **PHONE NUMBER(S):** _____
MONTH / DAY / YEAR

DRIVER'S LICENSE NUMBER: _____

PHYSICIAN/HEALTH CARE PROVIDER COMPLETES SECTIONS #2 - #7

TO THE PHYSICIAN/HEALTH CARE PROVIDER:

Your patient has self-reported a medical condition that may impact his/her fitness to drive safely or has been referred to the MVA because of a concern. There may be MVA notes below about this client and/or a request for specific information.

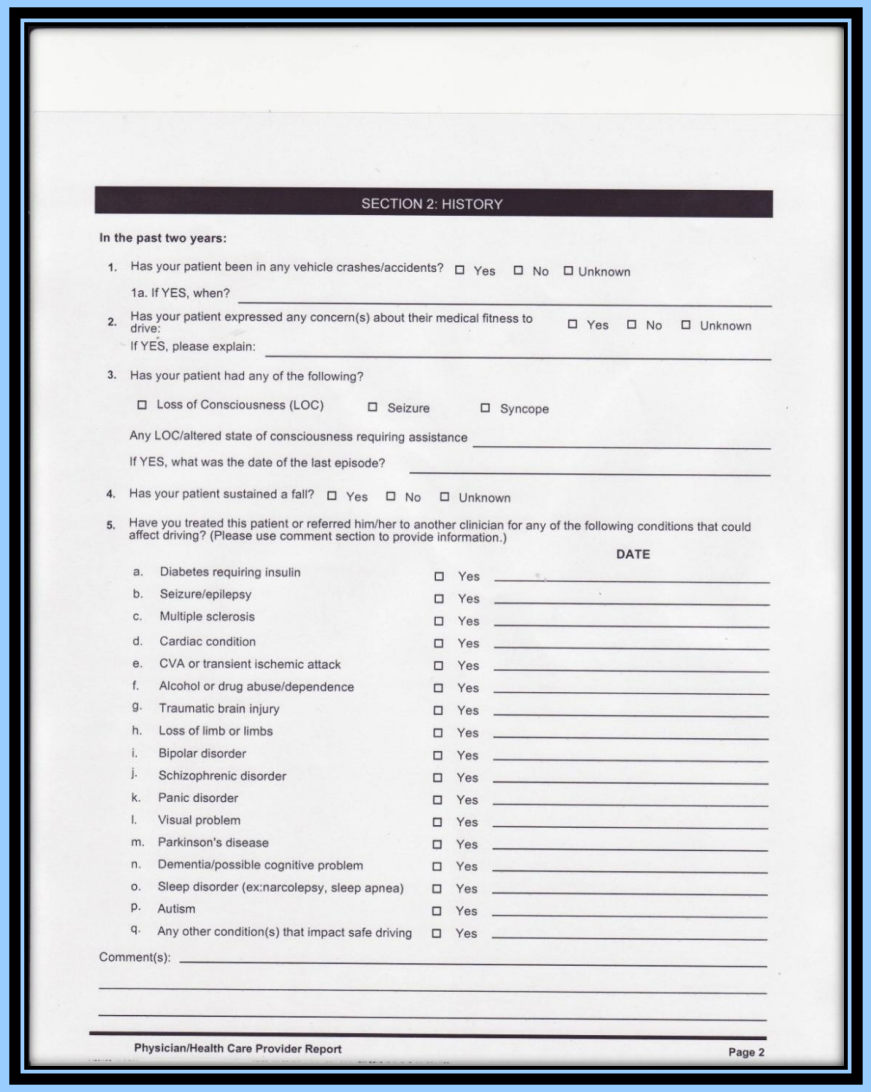
Please complete sections 2-7 of this form and give it to your patient for return to the MVA, OR, return the form by mail or fax to:

Motor Vehicle Administration
Division of Driver Wellness & Safety - Room 124
6601 Ritchie Highway, NE
Glen Burnie, MD 21062

Fax Number: 410-768-7627

MVA notes to the Physician/Health Care Provider: _____

Section 2: History



SECTION 2: HISTORY

In the past two years:

1. Has your patient been in any vehicle crashes/accidents? ☐ Yes ☐ No ☐ Unknown
   1a. If YES, when? _____
2. Has your patient expressed any concern(s) about their medical fitness to drive: ☐ Yes ☐ No ☐ Unknown
   If YES, please explain: _____
3. Has your patient had any of the following?
   ☐ Loss of Consciousness (LOC) ☐ Seizure ☐ Syncope
   Any LOC/altered state of consciousness requiring assistance _____
   If YES, what was the date of the last episode? _____
4. Has your patient sustained a fall? ☐ Yes ☐ No ☐ Unknown
5. Have you treated this patient or referred him/her to another clinician for any of the following conditions that could affect driving? (Please use comment section to provide information.)

			DATE
a.	Diabetes requiring insulin	☐ Yes	
b.	Seizure/epilepsy	☐ Yes	
c.	Multiple sclerosis	☐ Yes	
d.	Cardiac condition	☐ Yes	
e.	CVA or transient ischemic attack	☐ Yes	
f.	Alcohol or drug abuse/dependence	☐ Yes	
g.	Traumatic brain injury	☐ Yes	
h.	Loss of limb or limbs	☐ Yes	
i.	Bipolar disorder	☐ Yes	
j.	Schizophrenic disorder	☐ Yes	
k.	Panic disorder	☐ Yes	
l.	Visual problem	☐ Yes	
m.	Parkinson's disease	☐ Yes	
n.	Dementia/possible cognitive problem	☐ Yes	
o.	Sleep disorder (ex:narcolepsy, sleep apnea)	☐ Yes	
p.	Autism	☐ Yes	
q.	Any other condition(s) that impact safe driving	☐ Yes	

Comment(s): _____

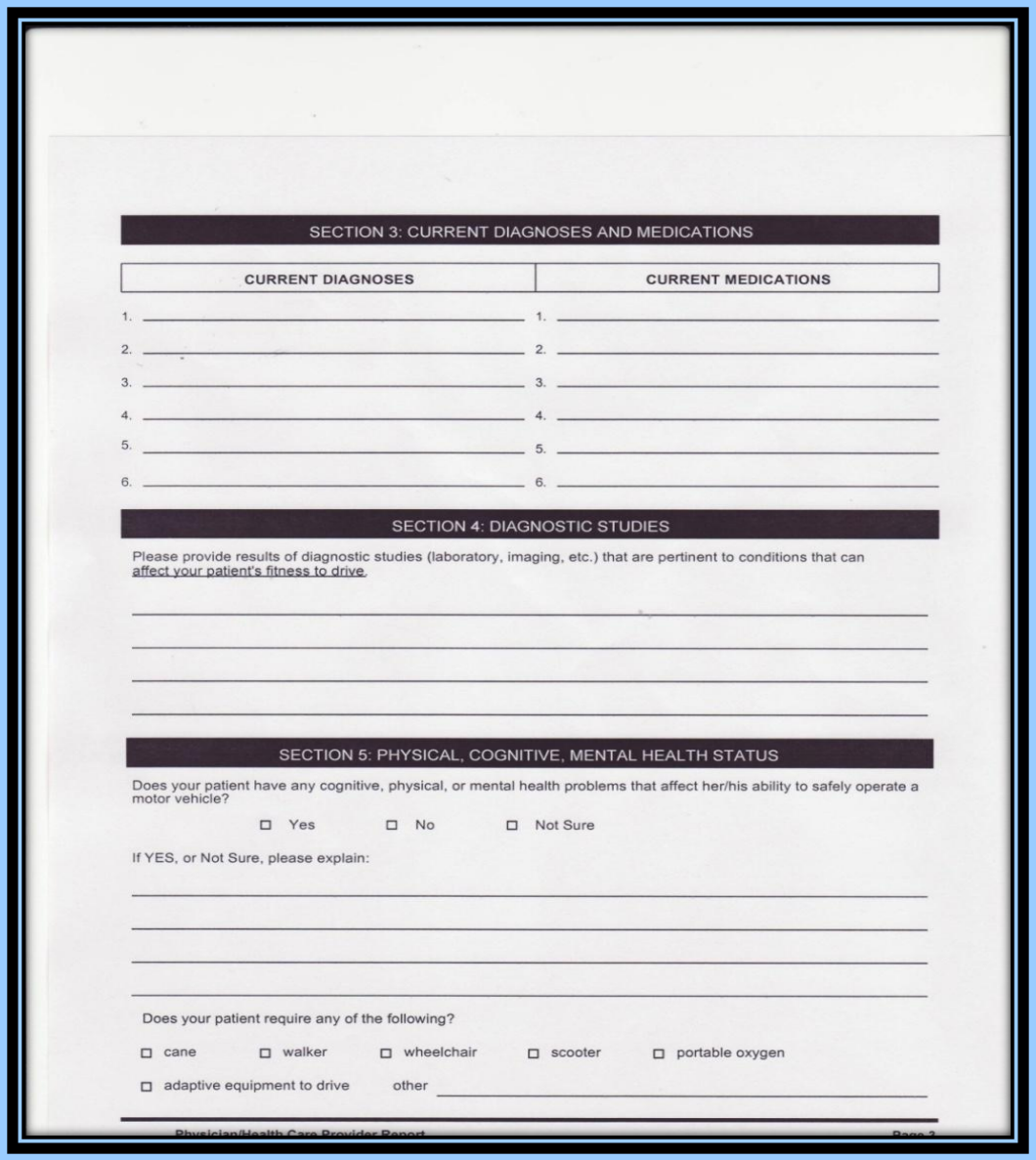
Physician/Health Care Provider Report Page 2

Has your patient been in any accidents?

Has your patient expressed any concern about their medical fitness to drive?

Has your patient had a LOC, Seizure or Syncopal episode?

Has your patient sustained a fall?



SECTION 3: CURRENT DIAGNOSES AND MEDICATIONS

CURRENT DIAGNOSES	CURRENT MEDICATIONS
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

SECTION 4: DIAGNOSTIC STUDIES

Please provide results of diagnostic studies (laboratory, imaging, etc.) that are pertinent to conditions that can affect your patient's fitness to drive.

SECTION 5: PHYSICAL, COGNITIVE, MENTAL HEALTH STATUS

Does your patient have any cognitive, physical, or mental health problems that affect her/his ability to safely operate a motor vehicle?

☐ Yes ☐ No ☐ Not Sure

If YES, or Not Sure, please explain:

Does your patient require any of the following?

☐ cane ☐ walker ☐ wheelchair ☐ scooter ☐ portable oxygen

☐ adaptive equipment to drive other

Physician/Health Care Provider Report Page 3

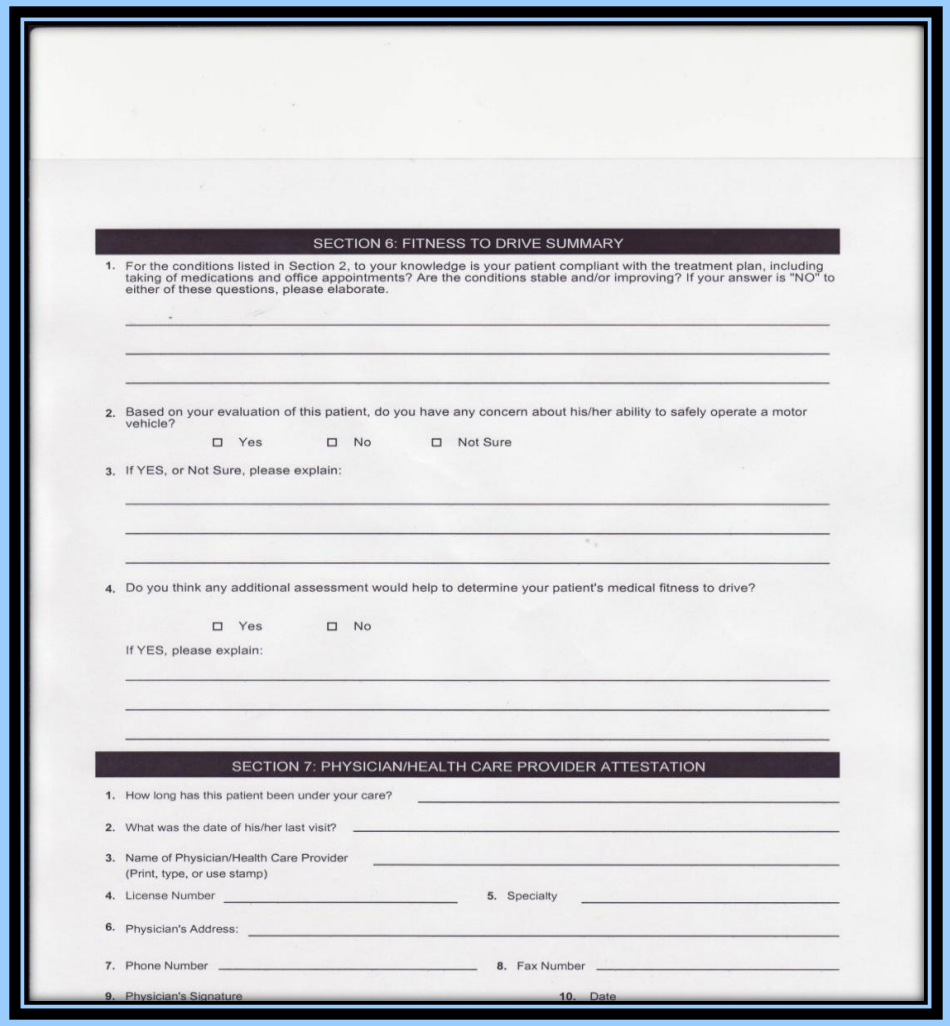
Section 3: Current diagnoses and medications

Section 4: Results of any diagnostic studies pertinent to medical conditions affecting driving

Section 5:Does your patient have any cognitive, physical or mental health problems that affect their ability to drive?

Does you patient require any assistive device or adaptive equipment to drive?

Fitness to Drive Summary



SECTION 6: FITNESS TO DRIVE SUMMARY

1. For the conditions listed in Section 2, to your knowledge is your patient compliant with the treatment plan, including taking of medications and office appointments? Are the conditions stable and/or improving? If your answer is "NO" to either of these questions, please elaborate.

2. Based on your evaluation of this patient, do you have any concern about his/her ability to safely operate a motor vehicle?

☐ Yes ☐ No ☐ Not Sure

3. If YES, or Not Sure, please explain:

4. Do you think any additional assessment would help to determine your patient's medical fitness to drive?

☐ Yes ☐ No

If YES, please explain:

SECTION 7: PHYSICIAN/HEALTH CARE PROVIDER ATTESTATION

1. How long has this patient been under your care?
2. What was the date of his/her last visit?
3. Name of Physician/Health Care Provider (Print, type, or use stamp)
4. License Number 5. Specialty
6. Physician's Address:
7. Phone Number 8. Fax Number
9. Physician's Signature 10. Date

Is your patient compliant with treatment?

Are conditions stable and/or improving?
If no, please elaborate.

Do you have any concern about his/her ability to safely operate a motor vehicle?

Do you think any additional assessment would help?

FCT- Functional Capacity Test

Can High-Risk Older Drivers Be Identified Through Performance-Based Measures in a Department of Motor Vehicles Setting?

Karlene K. Ball, PhD,[*] Daniel L. Roenker, PhD,[†] Virginia G. Wadley, PhD,[*] Jerri D. Edwards, PhD,[‡] David L. Roth, PhD,[§] Gerald McGwin, Jr., PhD,[‖¶#] Robert Raleigh, MD,[**] John J. Joyce, JD,[**] Gayla M. Cissell, MA,[†] and Tina Dube, MS[§]

***J Am Geriatr Soc* 54:77-84, 2006**

OBJECTIVES: To evaluate the relationship between performance-based risk factors and subsequent at-fault motor vehicle collision (MVC) involvement in a cohort of older drivers.

DESIGN: Prospective cohort study.

SETTING: Motor Vehicle Administration (MVA) field sites in Maryland.

PARTICIPANTS: Of the 4,173 older drivers invited to

crash, and those who took 353 ms or longer on subtest 2 of the UFOV were 2.02 times as likely to incur an at-fault MVC. Older adults, men, and individuals with a history of falls were more likely to be involved in subsequent at-fault MVCs.

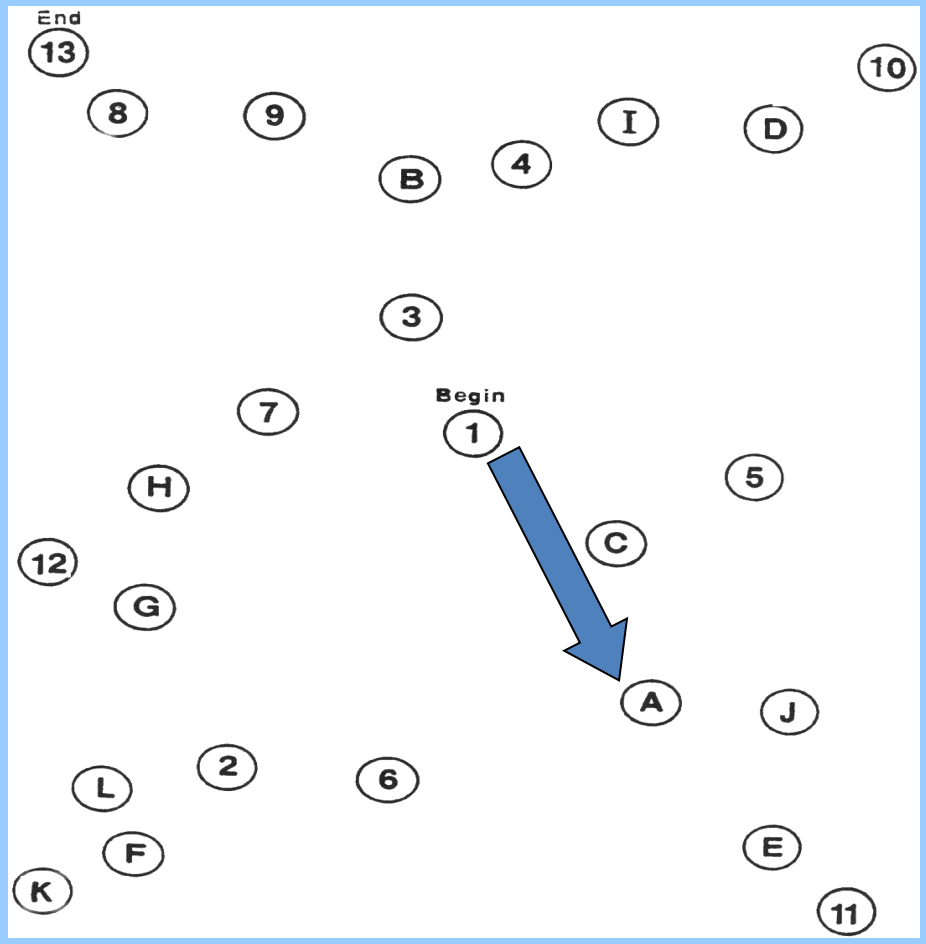
CONCLUSION: Performance-based cognitive measures are predictive of future at-fault MVCs in older adults. Cognitive performance, in particular, is a salient predictor of

"Performance-based cognitive measures are predictive of future at – fault MVCs in older adults. … High-risk older drivers can be identified through brief, performance-based measures administered in an MVA setting."

FCT- Functional Capacity Test

- Rapid walk - lower limb mobility (>7.0 sec)
- Delayed recall – assesses memory (≥2 wrong)
- Trails B - Assesses visual search & sequencing, information processing speed, attention switching (>2 min 30 sec)
- Motor Free Visual Perception Test (MVPT)
  Assesses understanding of spatial relationships (>4 wrong)
- Useful Field of View (UFOV®)
  Assesses divided attention. (>350 millisecs)

TRAILS B



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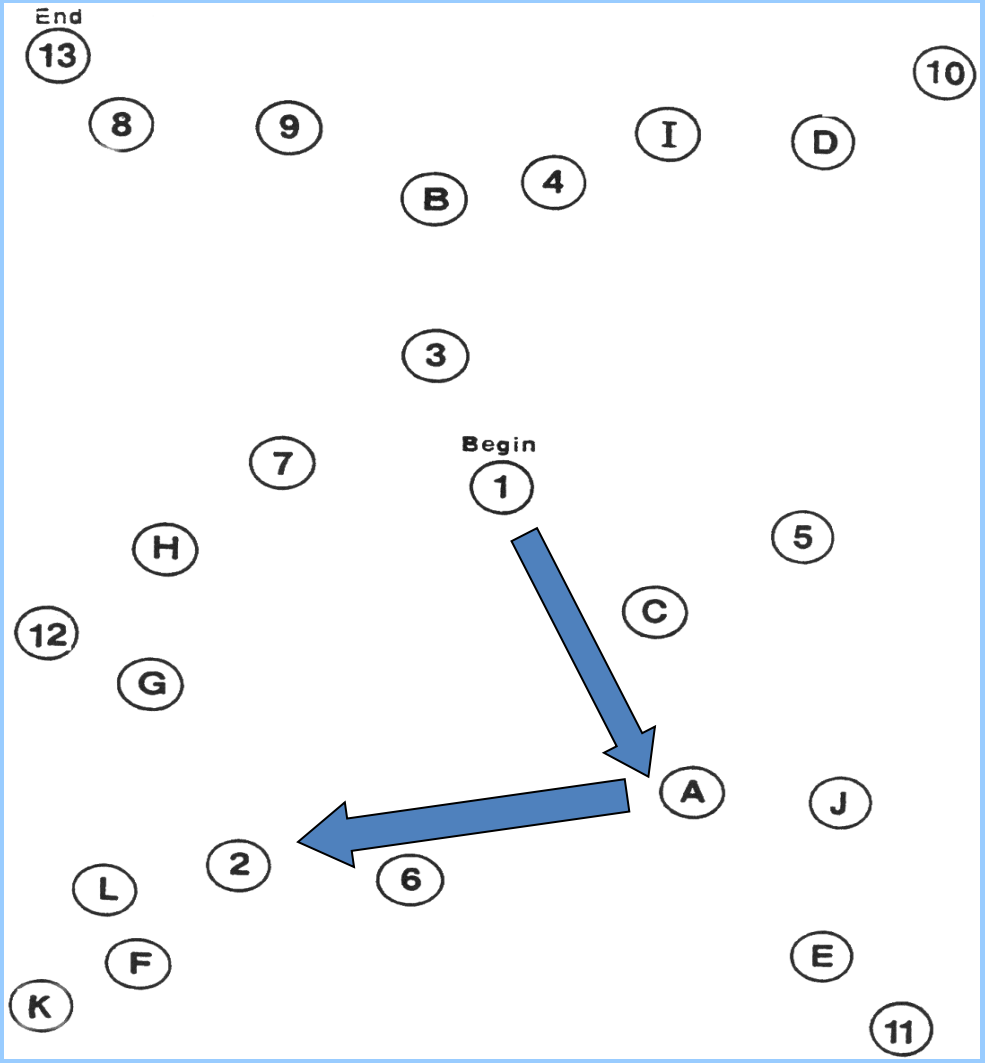

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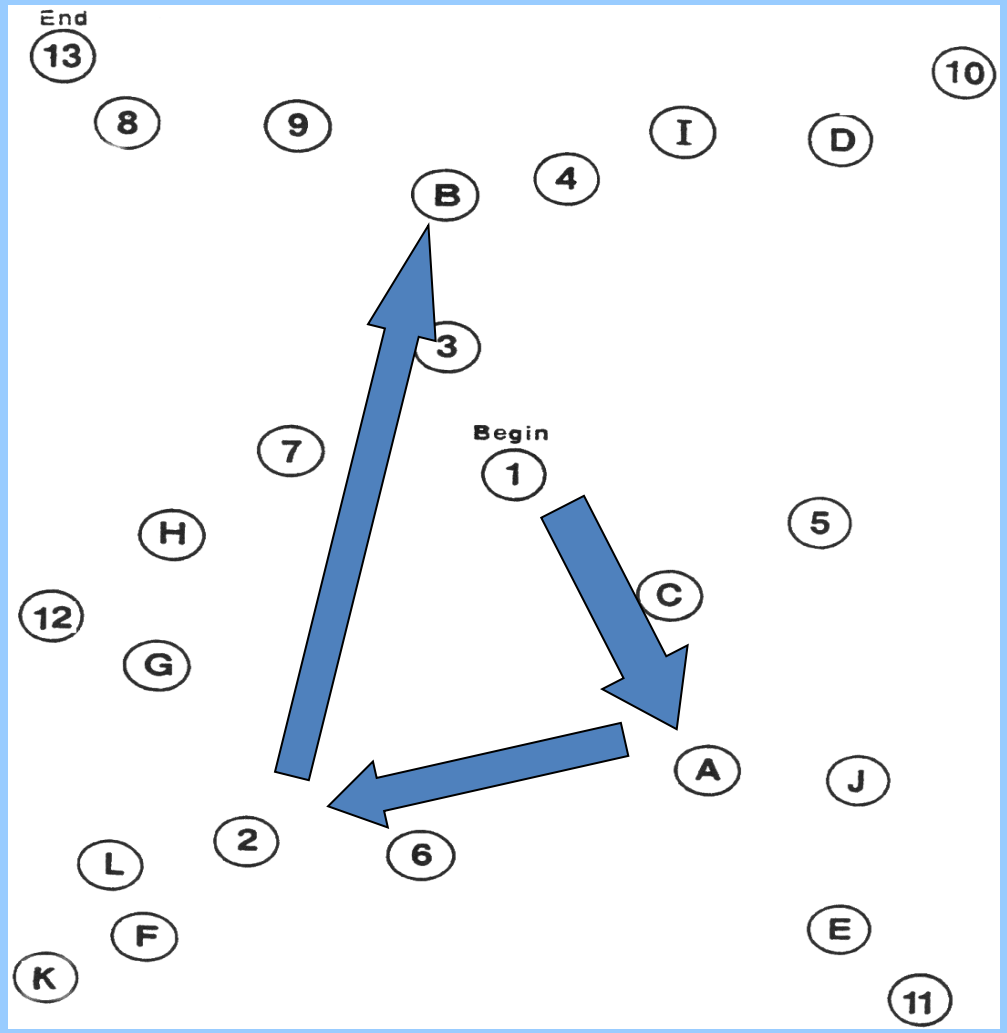
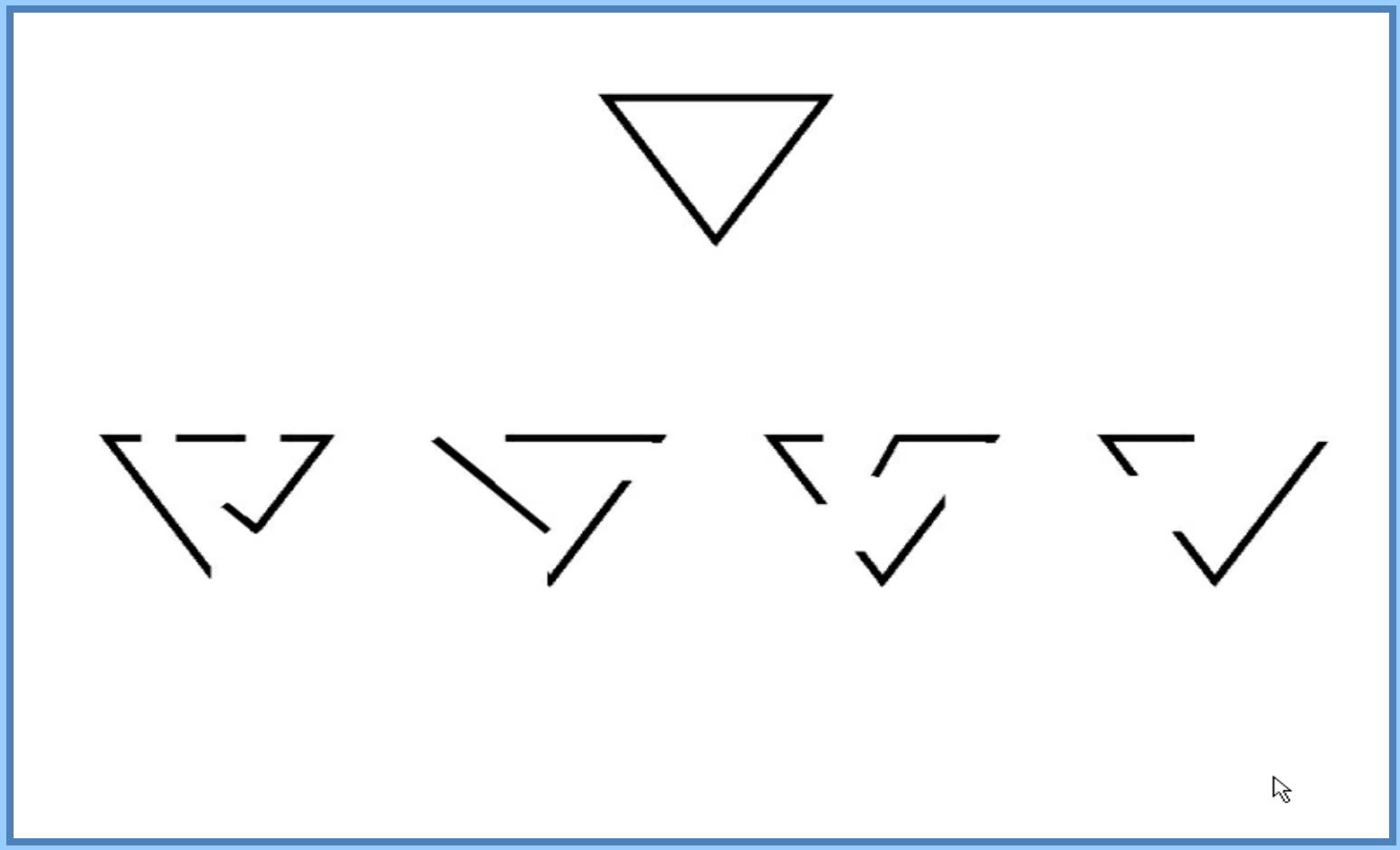
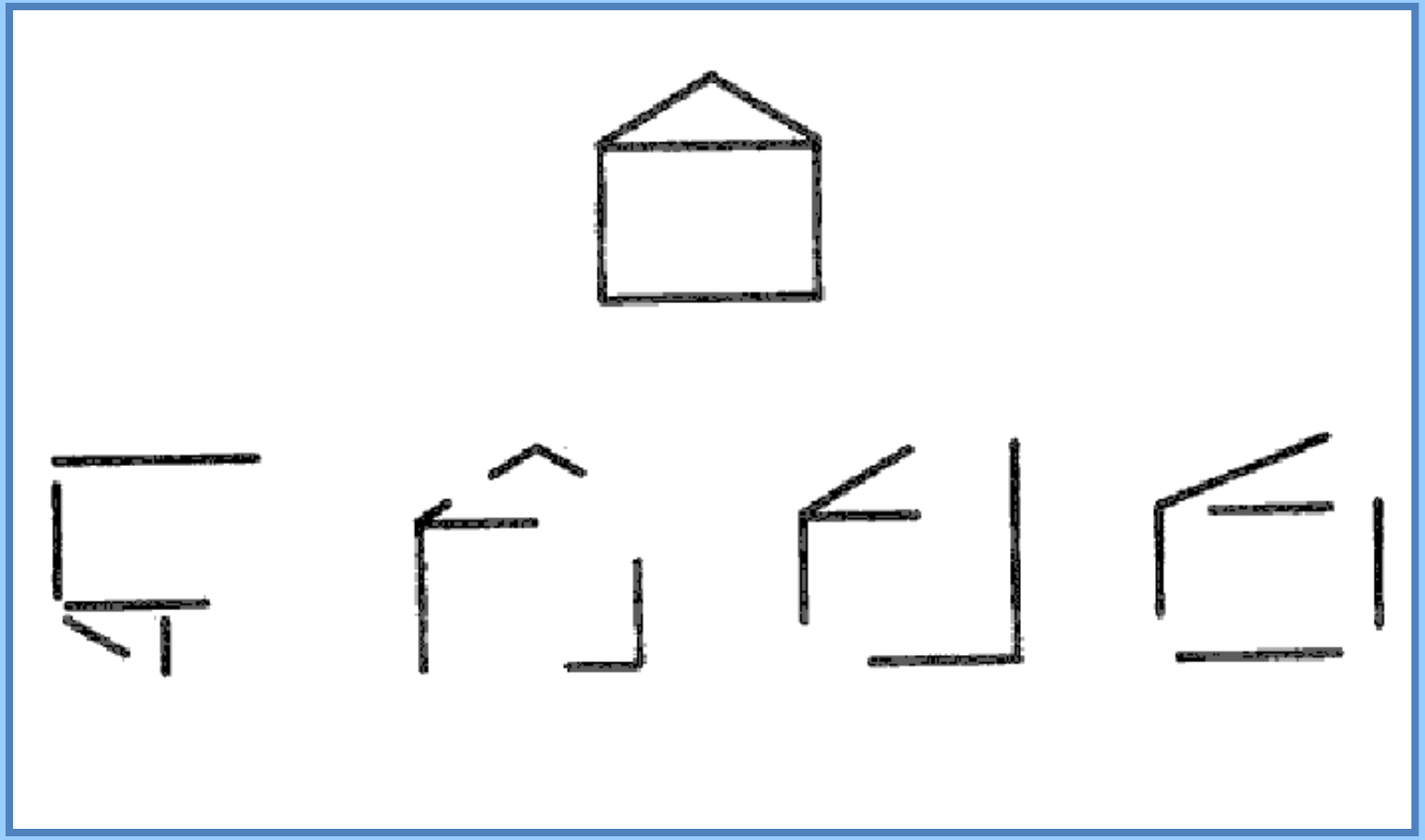


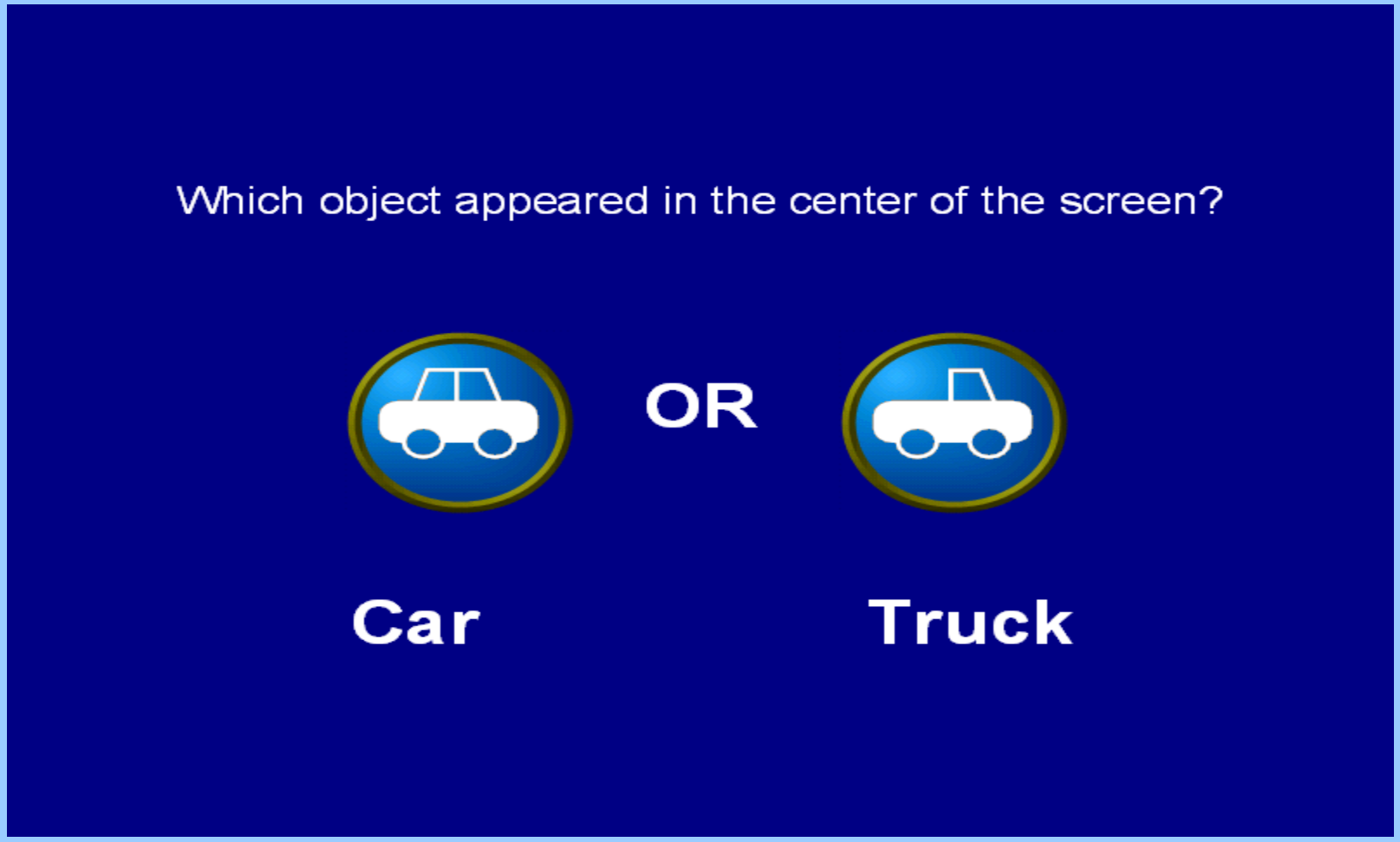
MVPT



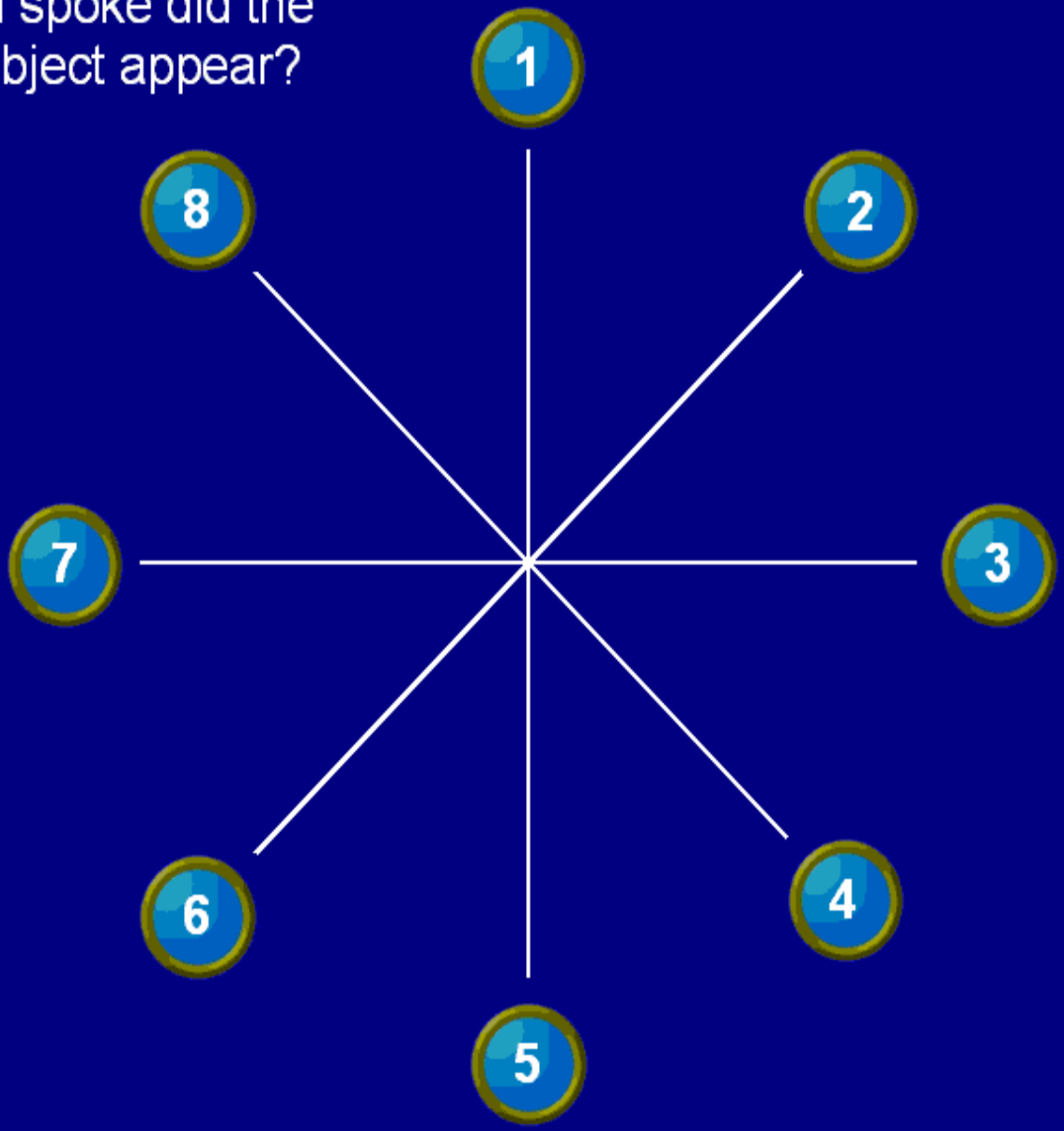
MVPT

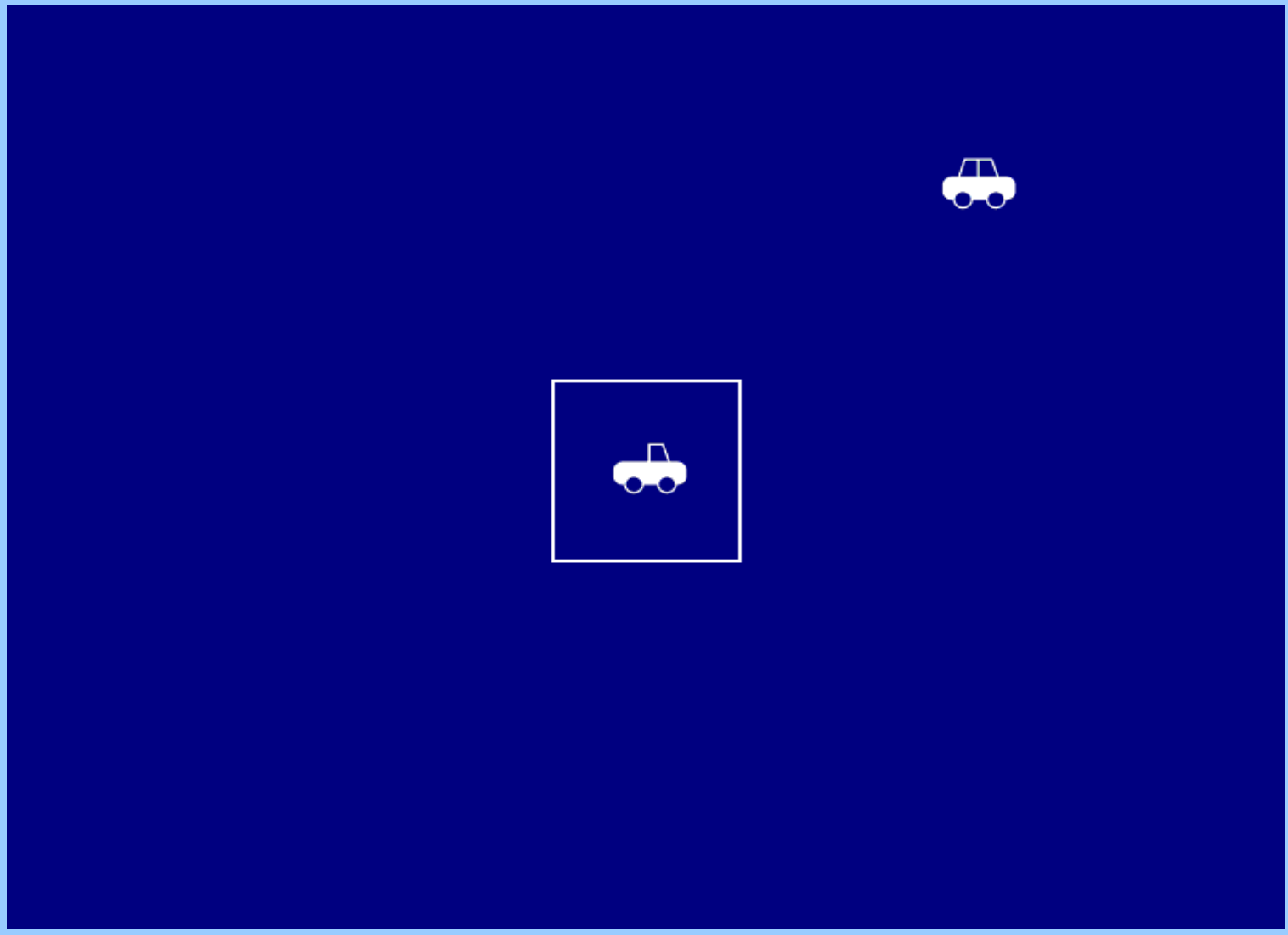


Useful Field of View (UFOV®)



On which spoke did the outside object appear?





Medical Advisory Board Outcomes

- Continue driving with or w/o possible restrictions.
- Request client be further evaluated with a FCT, MVA drive test or OT evaluation.
- Recommend suspending their driving privilege.
- May request follow up medical reports.
- May close case.

OT Driving Evaluation

- Formal driving evaluation that involves a clinical assessment followed by a behind the wheel evaluation. Considered by some to be the “gold standard”.
- Clinicians can refer clients for an OT evaluation or MVA can recommend.
- Clients that are found fit to drive may be reassessed on a regular basis.

Outcomes of OT Assessments

- Recommend continued driving.
- Recommend driver training.
- Recommendation for adaptive equipment (larger side view mirrors, pedal extenders, etc.)
- Recommendation for a geographic driving restriction for essential driving needs- shopping, doctor. The client is restricted to driving in a 5 to 10 mile radius.
- High risk driver- recommend cease driving and retire from driving; OT will usually notify the MVA.

Practice Parameter update: Evaluation and management of driving risk in dementia

Report of the Quality Standards Subcommittee of the American Academy of Neurology

Neurology 2010;74:1316-1324

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ABSTRACT

Objective: To review the evidence regarding the usefulness of patient demographic characteristics, driving history, and cognitive testing in predicting driving capability among patients with dementia and to determine the efficacy of driving risk reduction strategies.

Methods: Systematic review of the literature using the American Academy of Neurology's evidence-based methods.

Recommendations: For patients with dementia, consider the following characteristics useful for identifying patients at increased risk for unsafe driving: the Clinical Dementia Rating scale (Level A), a caregiver's rating of a patient's driving ability as marginal or unsafe (Level B), a history of crashes or traffic citations (Level C), reduced driving mileage or self-reported situational avoidance (Level C), Mini-Mental State Examination scores of 24 or less (Level C), and aggressive or impulsive personality characteristics (Level C). Consider the following characteristics not useful for identifying patients at increased risk for unsafe driving: a patient's self-rating of safe driving ability (Level A) and lack of situational avoidance (Level C). There is insufficient evidence to support or refute the benefit of neuropsychological testing, after controlling for the presence and severity of dementia, or interventional strategies for drivers with dementia (Level U). ***Neurology*® 2010;74:1316–1324**

Practice Parameter update

- CDR (Clinical Dementia Rating)- is useful to identify unsafe drivers. Risk of failing a drive test was 82.7 for CDR 0.5 and 88.67 for CDR of 1.0. However a substantial number of patients with a CDR of 0.5-1.0 will be able to pass a drive test.
- Caregiver's rating of unsafe driving is useful.
- MMSE of $\leq$ 24 is possibly useful.

Practice Parameter update

- Crash history- a history of a crash in past 1-5 years or a traffic citation in the past 2-3 years may be helpful to identity impaired clients.
- Driving- reduced driving mileage is possibly associated with poor driving.
- Aggressive or personality characteristics are possibly useful to identify at risk clients.

Practice Parameter update

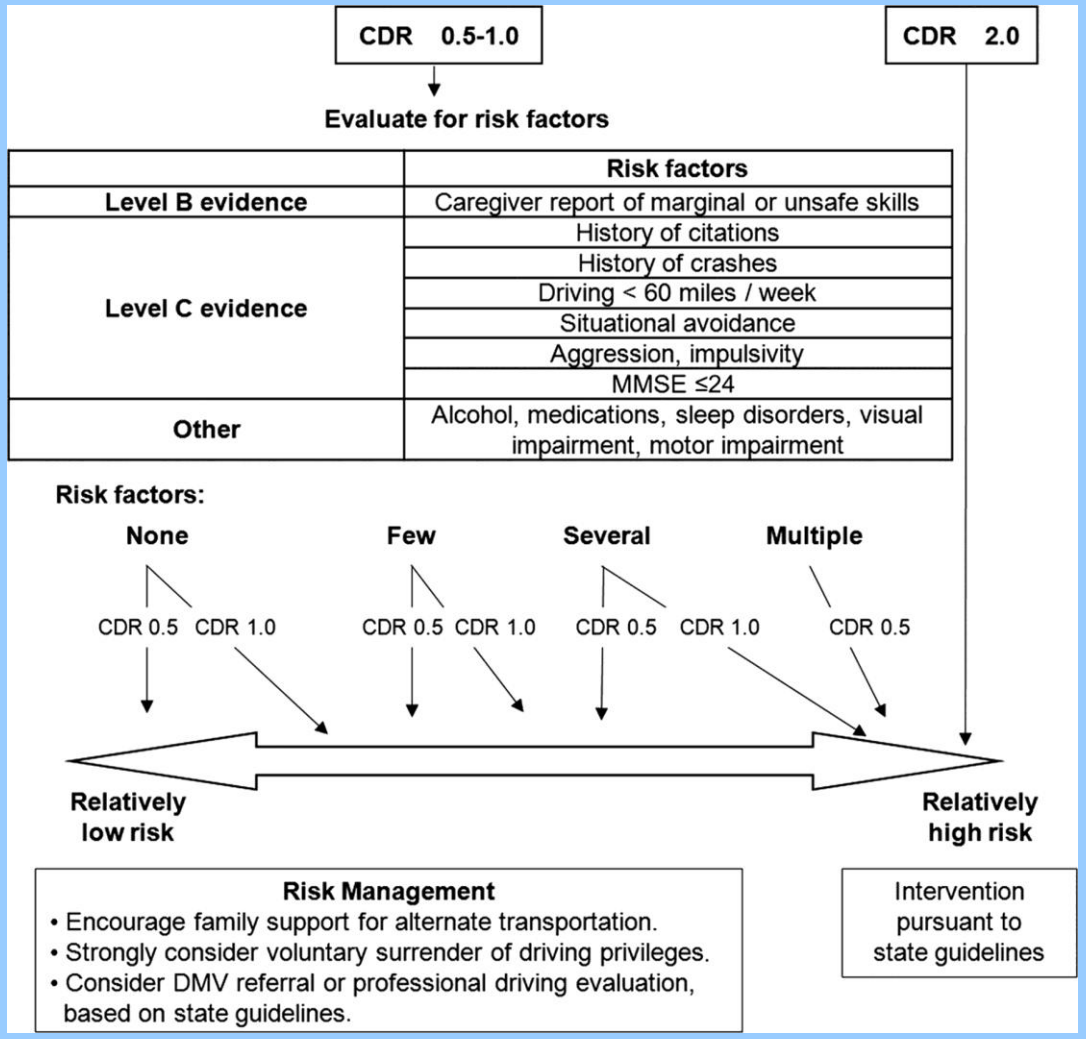
- Neuropsychological testing- insufficient evidence to support or refute the benefit.
- Interventions to reduce driving risk (training, license restrictions) - insufficient evidence to support or refute the benefit.

Practice Parameter update

Patients who continue to drive should be reassessed at 6 month intervals.

Patients with a CDR of 1.0 were 2 ½ times as likely as drivers without dementia to fail a drive test at a six month follow up.

Figure Sample algorithm for evaluating driving competence and risk management in patients with dementia.



Iverson D et al. Neurology 2010;74:1316-1324

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THE CONVERSATION to Retire from Driving

The need to retire is a common element in the aging process.

"Driving Life Expectancy" in Years

Age Group	Men	Women
70-74	11.5	11.2
75-79	8.0	7.9

Foley DJ et al: Am J Public Health 1993;92:1284-1280

The Conversation to Retire from Driving

Bring up the subject sooner than later when signs and symptoms of a condition appear that could progress to compromise the ability to drive in a safe manner.

The Conversation to Retire from Driving

Discuss the current situation *

Family concerns

Fender benders/near misses

Police reports

Clinical Reports – Driving Rehab Specialist

* I drove many years without an accident

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HELPING SENIORS DRIVE SAFER & LONGER

SEARCH

HOME

Evaluate Your Driving Ability | Understanding Mind & Body Changes | Improve Your Driving Skills | Maintain Mobility & Independence | Tools & Additional Resources | Resources for Family & Friends

» Self-Rating Tool
» Interactive Driving Evaluation
» Professional Assessment

ASK AN EXPERT

I'd like to use AAA Roadwise Review, but I don't want anyone to gain access to information about my driving abilities. What happens to my evaluation results?
Read the Answer »

Home > Evaluate Your Driving Ability > Interactive Driving Evaluation

AAA Roadwise Review

Designed by health and driving experts, this interactive driving evaluation can help seniors drive safer, longer.

Interactive Driving Evaluation

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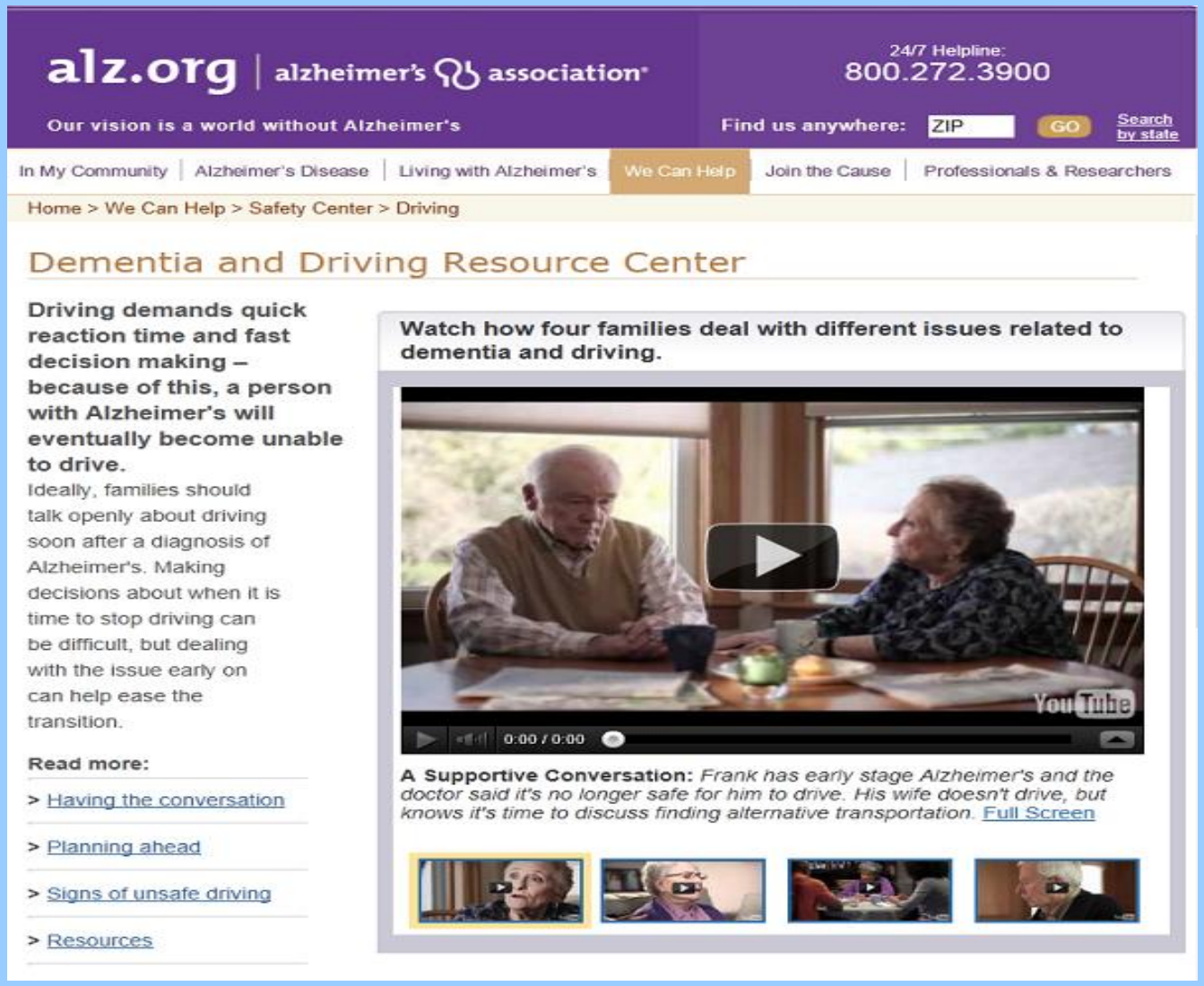
Interested in knowing how visual, mental and physical conditions may affect your safety as a driver? AAA Roadwise Review can help. The confidential self-screening program features a series of computer-based exercises that can be completed in 30 to 45 minutes and help you identify steps to reduce risk in eight key areas.

» Leg Strength & General Mobility

Alzheimer's Association