



American
Occupational Therapy
Association

Introduction to the Clinician's Guide to Assessing and Counseling Older Drivers

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Thursday, May 19, 2022, 10:45 to 11:45 ET



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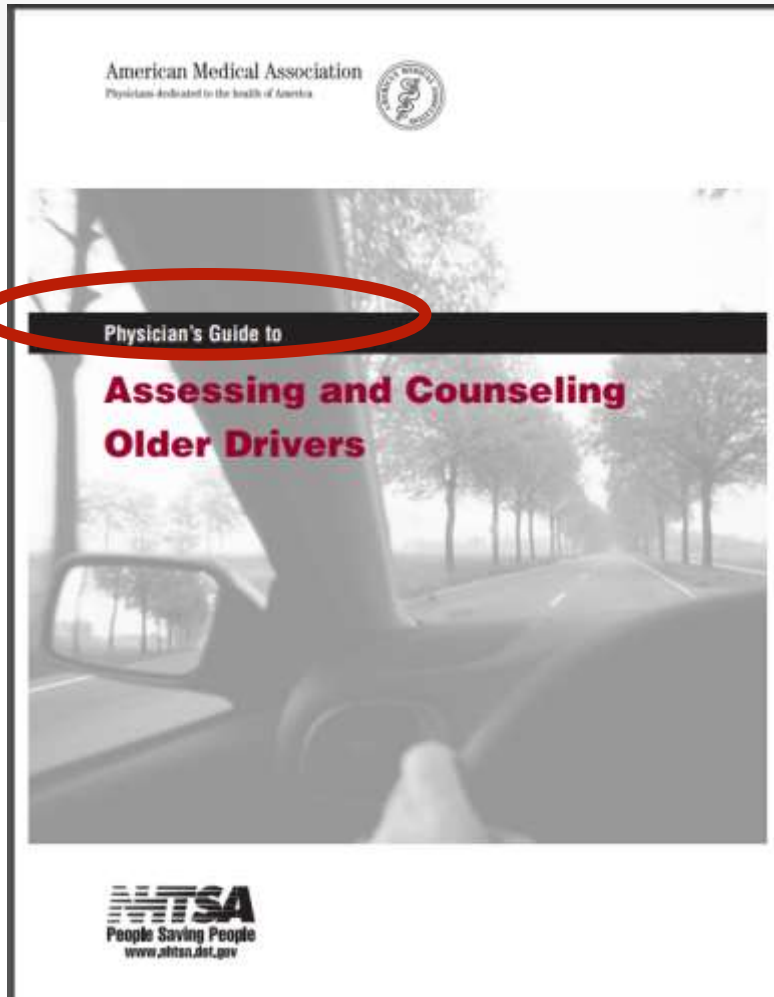
Acknowledgements:

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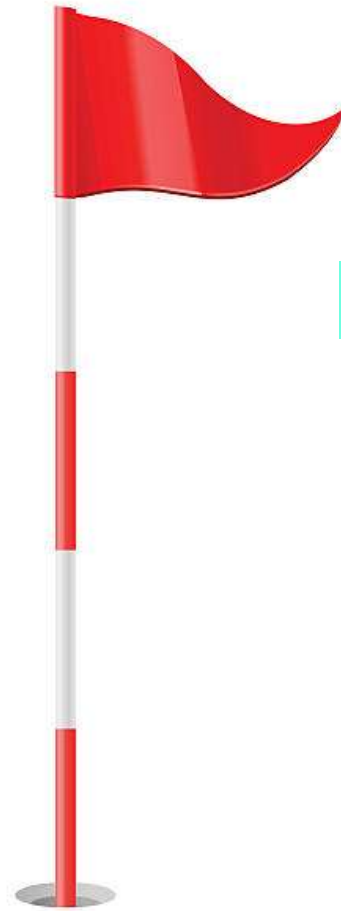
Physician's Guide ... Clinician's Guide



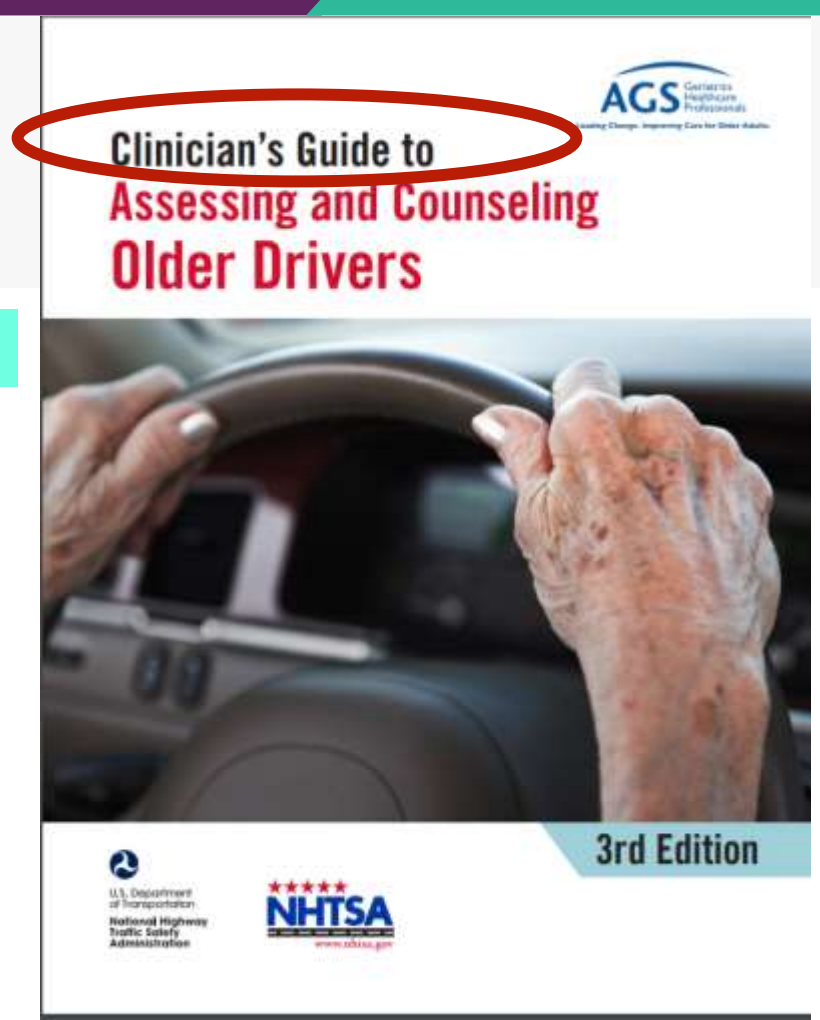
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2010

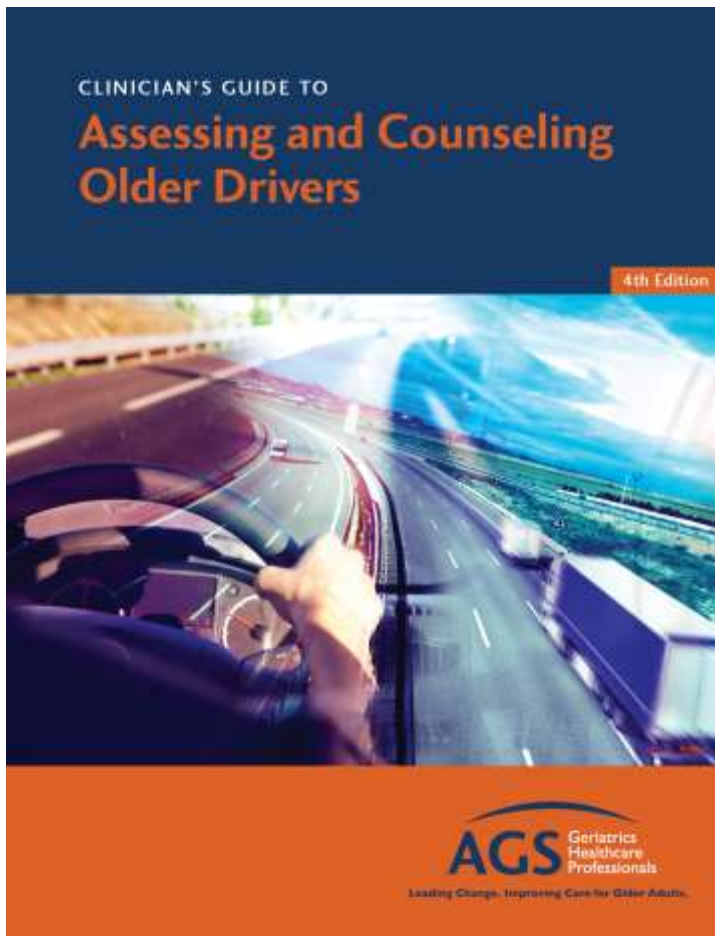


2015



- Physician's Guide, originally published in 2003
- *Yes, its medical*
- Each one of you today has a role to play **"It Takes a Village"**
- *Transportation underlies access to health & engagement*

<https://geriatricscareonline.org/toc/clinicians-guide-to-assessing-and-counseling-older-drivers-4th-edition/B047>



4th Edition

2019

10 Chapters:

- older driver, an overview
- risk assessment
- screening
- clinical interventions
- driver rehabilitation
- legal/ethical issues
- medical conditions, meds, functional deficits
- advising/counseling older drivers
- meeting future transportation needs

Tools in appendix

Patient education handouts

APP:



Safe Older Drivers
American Geriatrics Society

Themes of the Clinician's Guide

Healthcare providers (clinicians) involved in the care of older adults need office-based tools to screen for medical and functional issues which may affect driving safety

Understand and distinguish assessment of impairment and driving risk

Interventions to preserve mobility and optimize functional ability through treatment

A Pathway of Services, a team approach to refer appropriately for specialized care and driving rehabilitation when ready to benefit. "At the right time"

A continuum of support through awareness resources, supportive intervention and counseling for planning and implementing transition from driving if necessary.

Chapter 1: Health Care Providers' Role

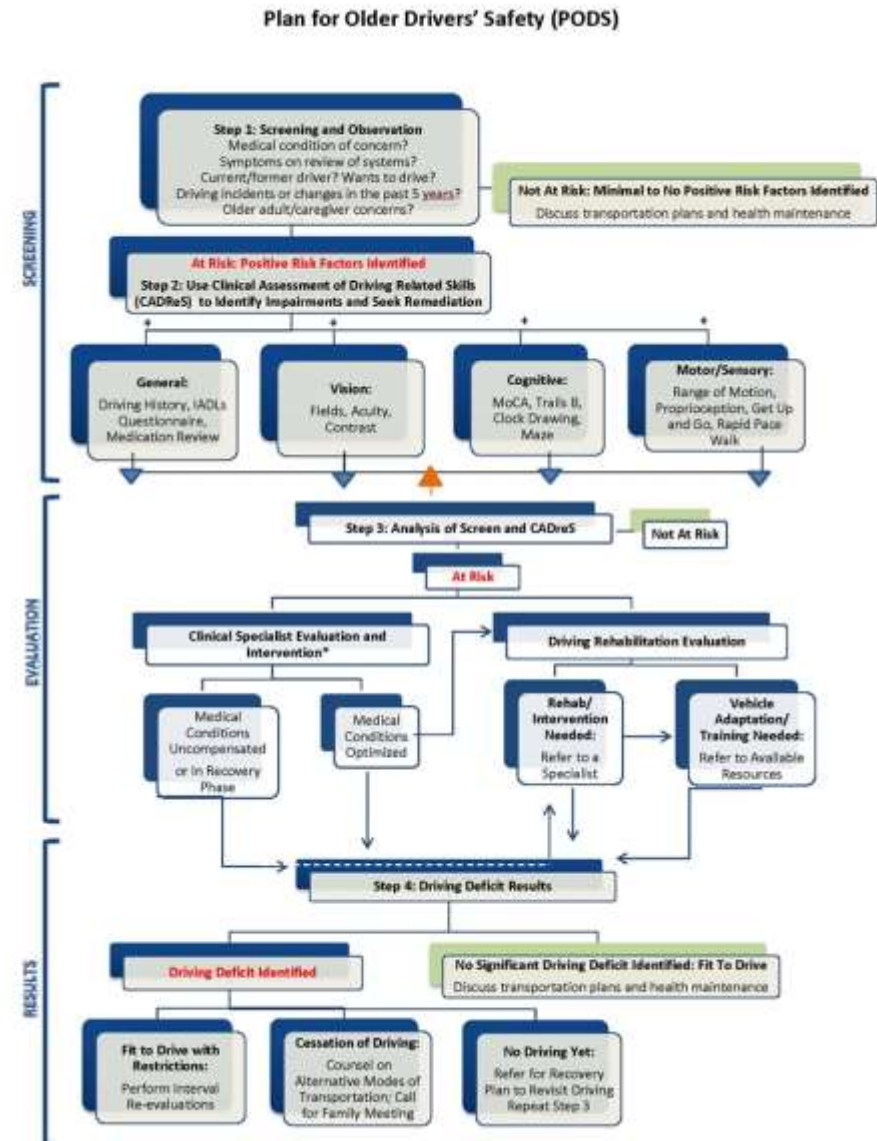
Maximize	Maximize older adults' driving "life expectancy" to match their lifespan and activity levels
Preserve	Promote health and fitness to preserve skills
Minimize	Minimize injuries in a potential crash
Prevent	Prevent fatalities to older drivers and others sharing the road
Team	Work with other interprofessional team members in different settings of care
Plan	Assist with transitioning to alternative transportation options

Table 1.1 - Clinical Levels of Care for Prevention of Driving Disability

Level of Care	Description
Primary prevention	Assesses the older adult driver and intervenes to prevent the loss of driving ability
Secondary prevention	Addresses issues that have already caused the loss of driving skills and attempts to restore those skills through treatment and rehabilitation
Tertiary prevention	Identifies when irreversible loss of driving skills has occurred and includes recommending alternatives to avoid harm to the older adult and others when driving is no longer an option

Plan for Older Drivers' Safety

- **Screen** for Risk
 - Medical/Clinical Assessment
 - Step 1: Ask and notice
 - Step 2: Screen, Driving Risk Assessment
 - Step 3: Risk? and response
- Those at Risk: In-depth **Evaluation**
 - Medical factors V, C, P
 - Evaluation of driving performance, comprehensive driving evaluation
- **Results** & Outcomes
 - Step 4: Act, guided by the outcome
 - Potential to drive, now or in future
 - Additional services?
 - If indicated, support mobility as non-driver



Medical Conditions in Older Drivers

Resource: NHTSA videos

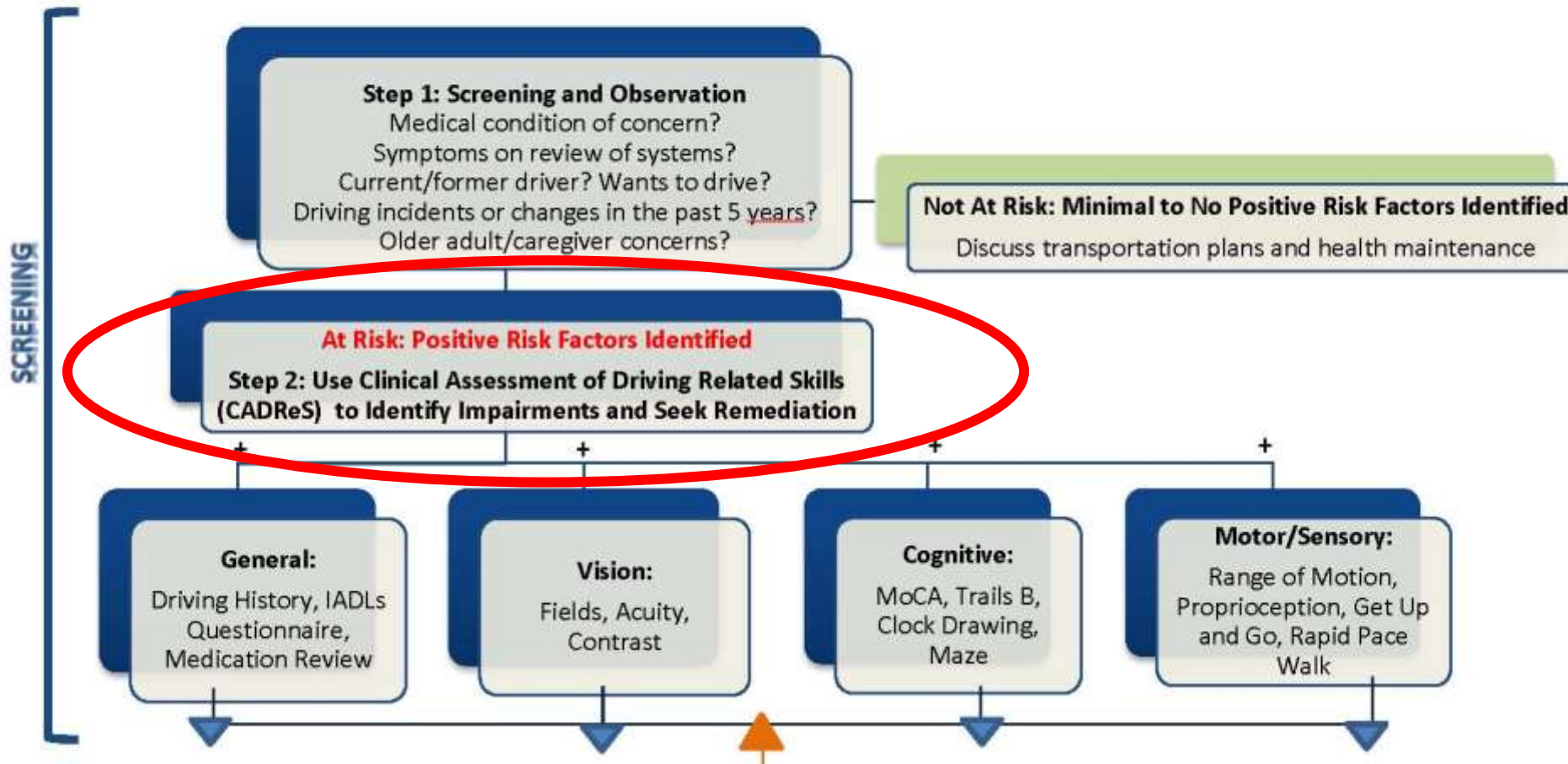
- Dementia
- Parkinson's Disease
- Stroke
- Sleep Apnea
- Diabetes
- Vision Disorders
- Severe Arthritis
- Videos at USDOT NHTSA channel



https://www.youtube.com/watch?v=MMJfgsc4rwY&list=PL2GIXO1j4M71ygzAhIXGkmKcYEzn_BBct&index=9

Clinical Assessment of Driving Related Skills (CADReS)

Plan for Older Drivers' Safety (PODS)

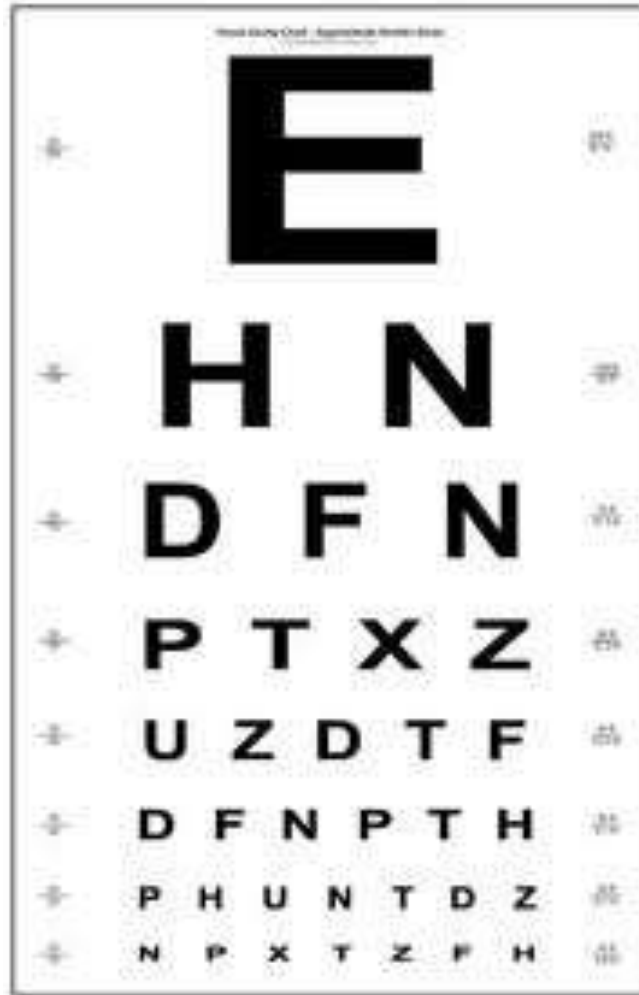


What data?

What Do We Test?

- the Guide responded to “the most common question”
- Offered tools useful for screening
- Describes and distinguishes
 - Screening for risk
 - Evaluating fitness to drive
- **The following screen identifies *RISK* as the place to start.**
 - Duty to connect impairments to risk
 - Impairments on a screening tool are NOT to be used to determine Fitness to Drive!





Vision Screen:



Acuity



Fields

Motor/Sensory:

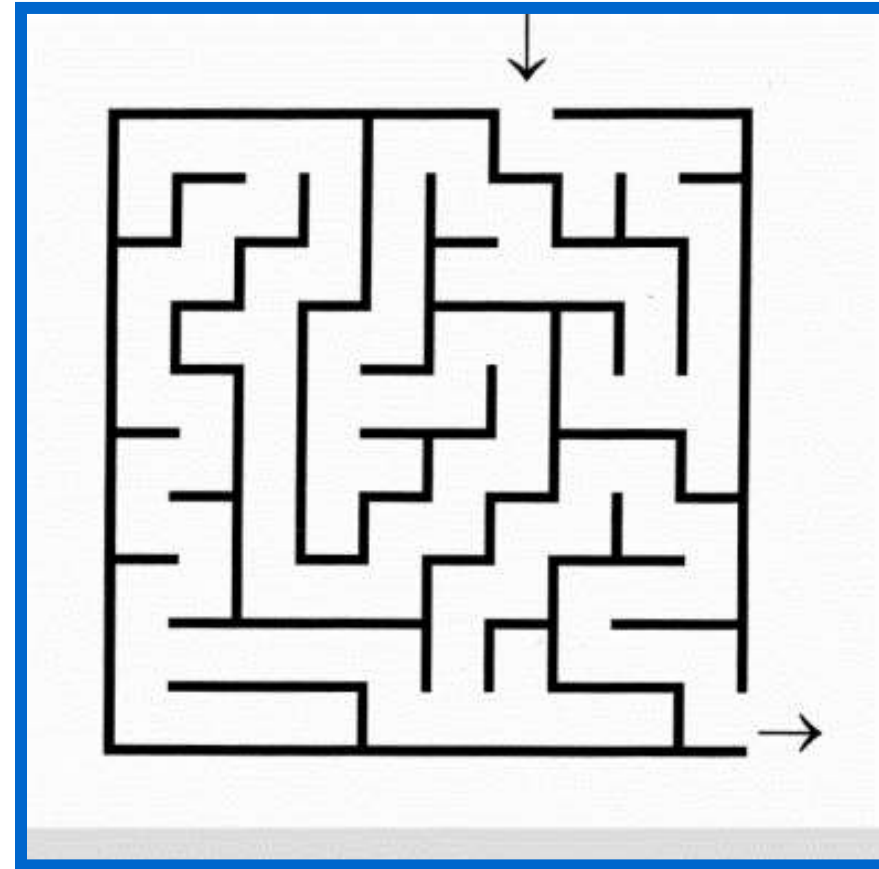
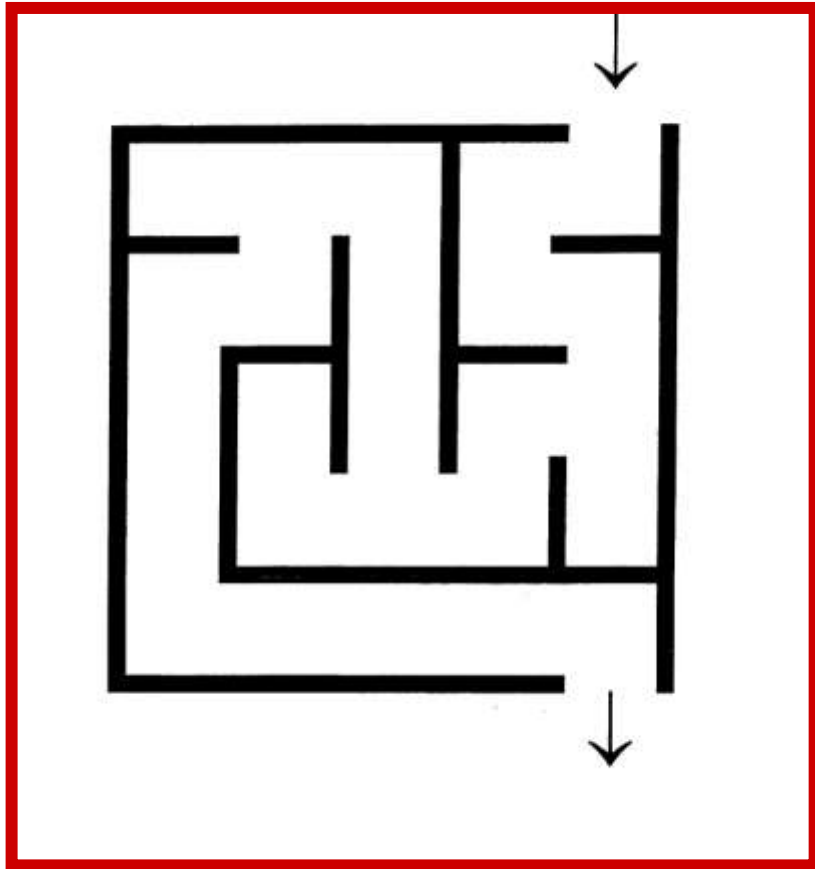
3. Rapid pace walk: _____ seconds

Longer than 10 seconds is abnormal; consider referral for driving evaluation and/or evaluation of gait disorder. Was test performed with a walker or cane? If yes, please specify:

4. Range of motion: Specify “within normal limits (WNL)” or “not WNL.” If not WNL, describe.

	Right	Left
Neck rotation		
Finger curl		
Shoulder and elbow flexion		
Ankle plantar flexion		
Ankle dorsiflexion		

Cognitive: Snellgrove Maze



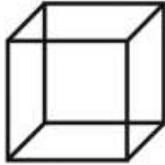
Cognitive:

Montreal Cognitive Assessment (MoCA)

MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

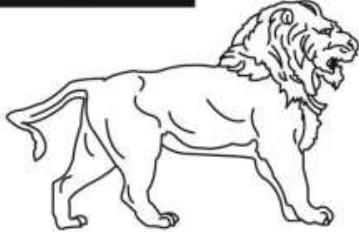
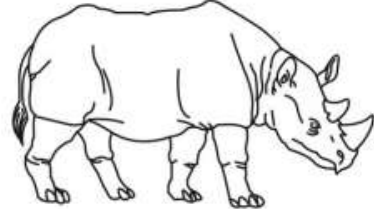
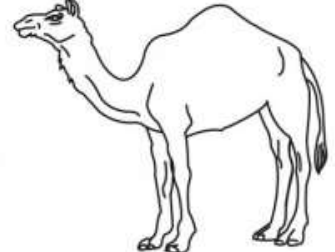
NAME: _____ Education: _____ Date of birth: _____
Sex: _____ DATE: _____

VISUOSPATIAL / EXECUTIVE

Copy cube  []

Draw CLOCK (Ten past eleven) (3 points) []

NAMING

 []  []  []

MEMORY

Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial					
2nd trial					

No points

ATTENTION

Read list of digits (1 digit/ sec.). Subject has to repeat them in the forward order [] 2 1 8 5 4
Subject has to repeat them in the backward order [] 7 4 2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors
[] FBACMNAAJKLBAFAKDEAAAJAMOF AAB

Serial 7 subtraction starting at 100 [] 93 [] 86 [] 79 [] 72 [] 65
4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt

LANGUAGE

Repeat: I only know that John is the one to help today. []

Cognitive: Trails A and Trails B

Trail Making Test, Part A

Client Name: _____ Date: _____

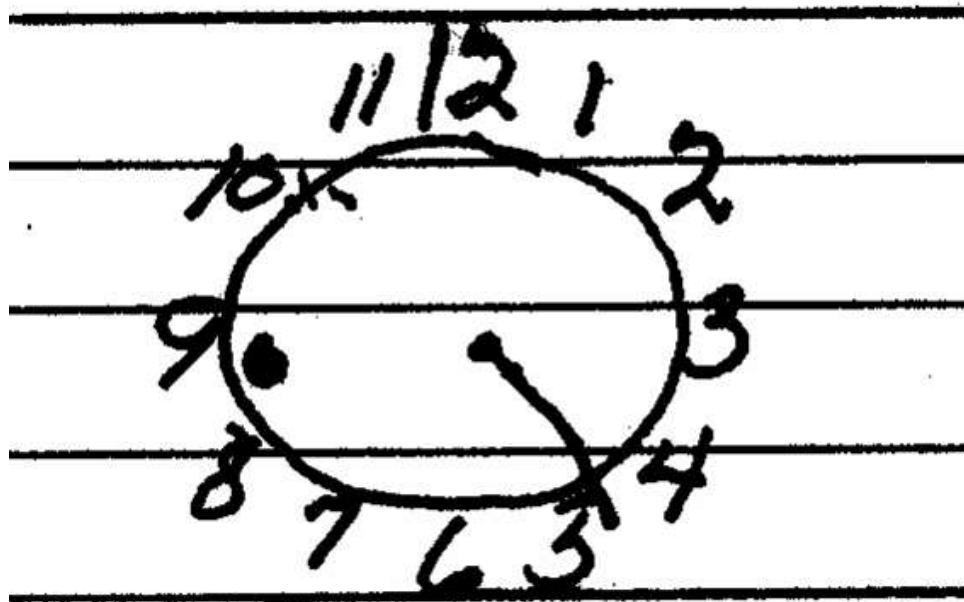
A grid of 25 numbered circles (1-25) scattered across the page. Circle 1 is labeled "Start".

Trail Making Test, Part B

Client Name: _____ Date: _____

A grid of 12 lettered circles (A-L) and 12 numbered circles (1-12). A blue path is drawn connecting the circles in the sequence: 1 (Start) -> 2 -> 3 -> 4 -> 5 -> 6 -> 7 -> 8 -> 9 -> 10 -> 11 -> 12.

Cognitive: Clock Drawing



8. **Clock-drawing test:** Please check "yes" or "no" to the following criteria.

	Yes	No
Only the numbers 1–12 are included (no duplicates or omissions).		
The numbers are drawn inside the clock circle.		
The numbers are spaced equally or nearly equally from each other.		
The numbers are spaced equally or nearly equally from the edge of the circle.		
One clock hand correctly points to 2.		
There are only two clock hands.		
There are no intrusive marks, writing, or hands indicating incorrect time.		

Clinical Assessments of Driving Related Skills

CADReS

➤ Impairments ? Concerns?

➤ Analysis:

Screening justifies further evaluation, by the provider trained to offer that level of service

➤ Professional evaluation to understand the changes, the impairments, and seek to address and remediate

Appendix in Guide includes:

- Forms
- How to administer
- How to score

Modified Driving Habits Questionnaire

Current Driving

1. Do you wear glasses or contacts when you drive? ___ Yes ___ No
2. Do you wear a seatbelt when you drive? ___ Always ___ Sometimes ___ Never
3. Which way do you prefer to get around?
 - ___ Drive yourself
 - ___ Have someone drive you
 - ___ Use public transportation or a taxi
4. How fast do you usually drive compared with the general flow of traffic?
 - ___ Much faster
 - ___ Somewhat faster
 - ___ About the same
 - ___ Much slower
 - ___ Somewhat slower
5. Has anyone suggested over the past year that you limit your driving or stop driving? ___ Yes ___ No
6. How would you rate the quality of your driving?
 - ___ Excellent
 - ___ Good
 - ___ Average
 - ___ Fair
 - ___ Poor
7. If you had to go somewhere and didn't want to drive yourself, what would you do?
 - ___ Ask a friend or relative to drive you
 - ___ Call a taxi or take the bus
 - ___ Drive yourself regardless of how you feel
 - ___ Cancel or postpone errand plans and stay at home
 - ___ Other (Specify):

Name: _____ Date: _____

1. **Visual fields:** Shade in any areas of deficit:

Patient's	
L	R
()	()
2. **Visual acuity:** _____ OD _____ OS _____ OU
 Was the patient wearing corrective lenses? If yes, please specify: _____
 If acuity in either eye is worse than 20/40, consider referral to ophthalmologist.
3. **Rapid pace walk:** _____ seconds
 Longer than 10 seconds is abnormal; consider referral for driving evaluation and/or evaluation of gait disorder. Was test performed with a walker or cane? If yes, please specify: _____
4. **Range of motion:** Specify "within normal limits (WNL)" or "not WNL." If not WNL, describe.

	Right	Left
Neck rotation		
Finger curl		
Shoulder and elbow flexion		
Ankle plantar flexion		
Ankle dorsiflexion		

With any deficiencies or pain, consider referral to physical therapy for exercises or pain management or to occupational therapy if impacting ADLs/IADLs as indicated, and/or consider referral for comprehensive driving evaluation.

MONTREAL COGNITIVE ASSESSMENT (MOCA)
 Version 7.1.3 (rev 1/14) Mar 5, 2008

NAME: _____ Education: _____ Date of birth: _____
 Sex: _____ (DATE): _____

VISUOSPATIAL EXECUTIVE

Copy cube. Draw CUBE (for past version) (circle)

1. E (East) 2. A (Away) 3. B (Back) 4. D (Down) 5. C (Clockwise)

NAMING

1. Lion 2. Rhino 3. Camel

MEMORY Read list of words; subject must repeat words. Do 2 correct/3 total is acceptable. Do a recall after 5 minutes.

FACE	VEGET	CHURCH	DRUG	RED
Tree frog	Broccoli	Church	Aspirin	Red
ANDY				

ATTENTION Read list of digits (1 digit each). Subject has to repeat them in the correct order. Subject has to repeat them in the backward order.

1 1 2 1 8 5 4
1 1 7 4 2

Read list of letters. The subject must tap with the hand on each letter. He points to 3 items.

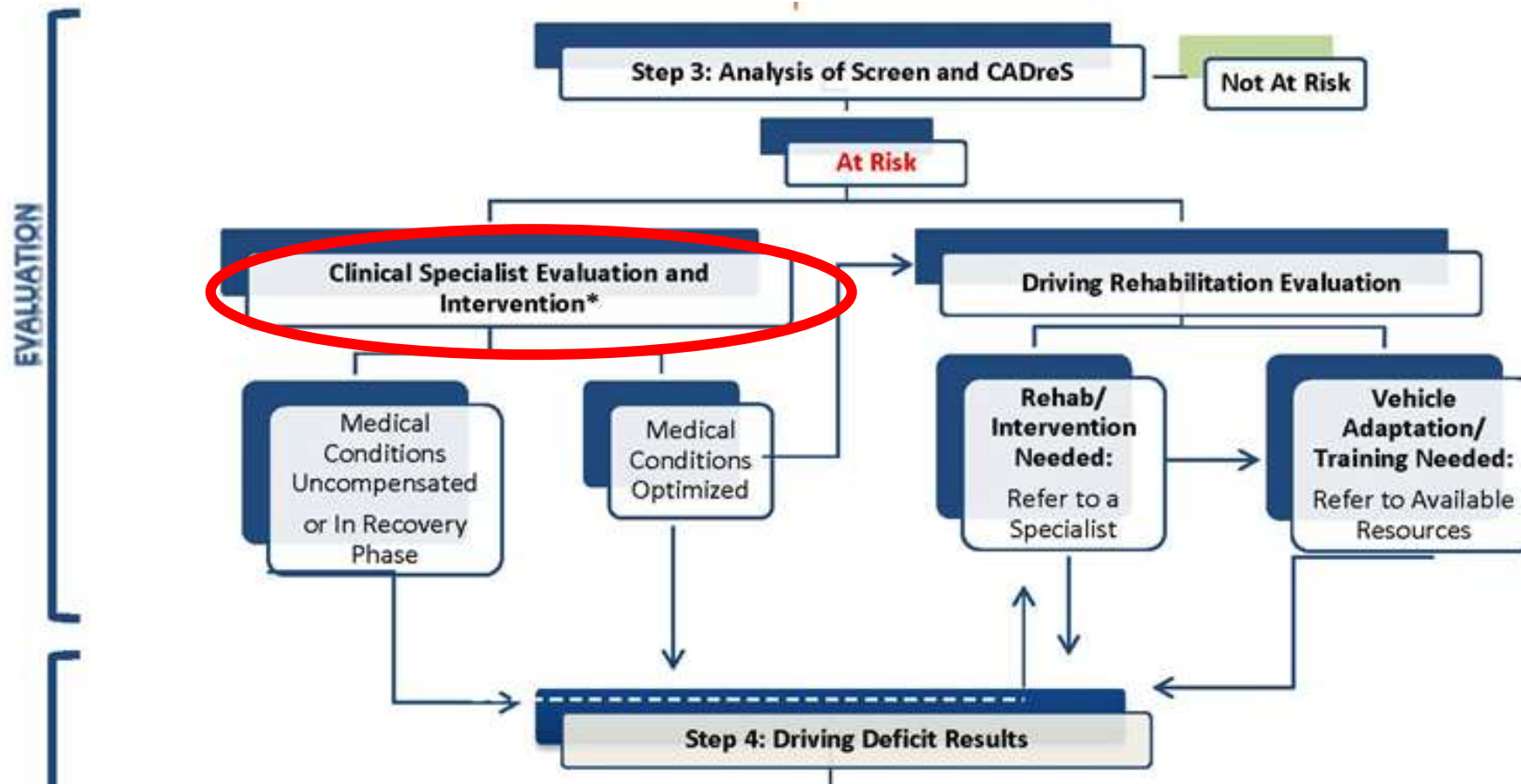
[] # B A C M N A A J K L B A F A R D E A A A J A M O P A A B

Send 7 administrations (reading at 100) 1 1 90 1 1 80 1 1 70 1 1 60 1 1 50 1 1 40 1 1 30 1 1 20 1 1 10

LANGUAGE Repeat: I only repeat what others say to me to help me hear. ()

9. B 4. I D 1. Start 5. C 7. 3 2. 6 8. A J 3. 6 E

Step 3: Analysis of Screen and CADReS

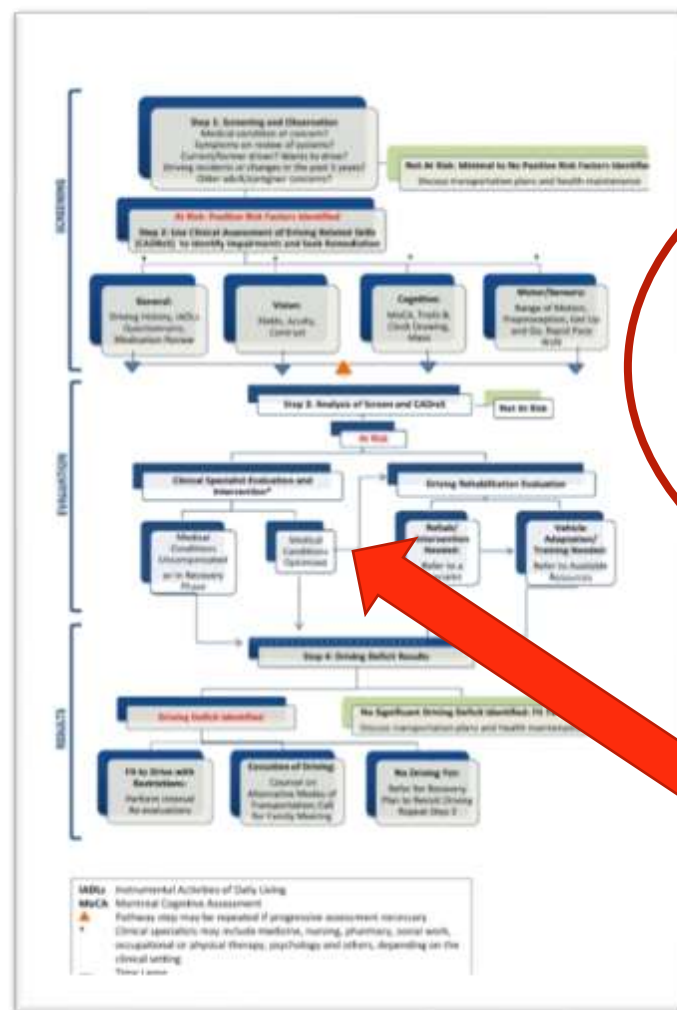


Plan For Older Driver's Safety (PODS)

Screening

Evaluation

Results



Clinical Specialist Evaluation may include specialists to:

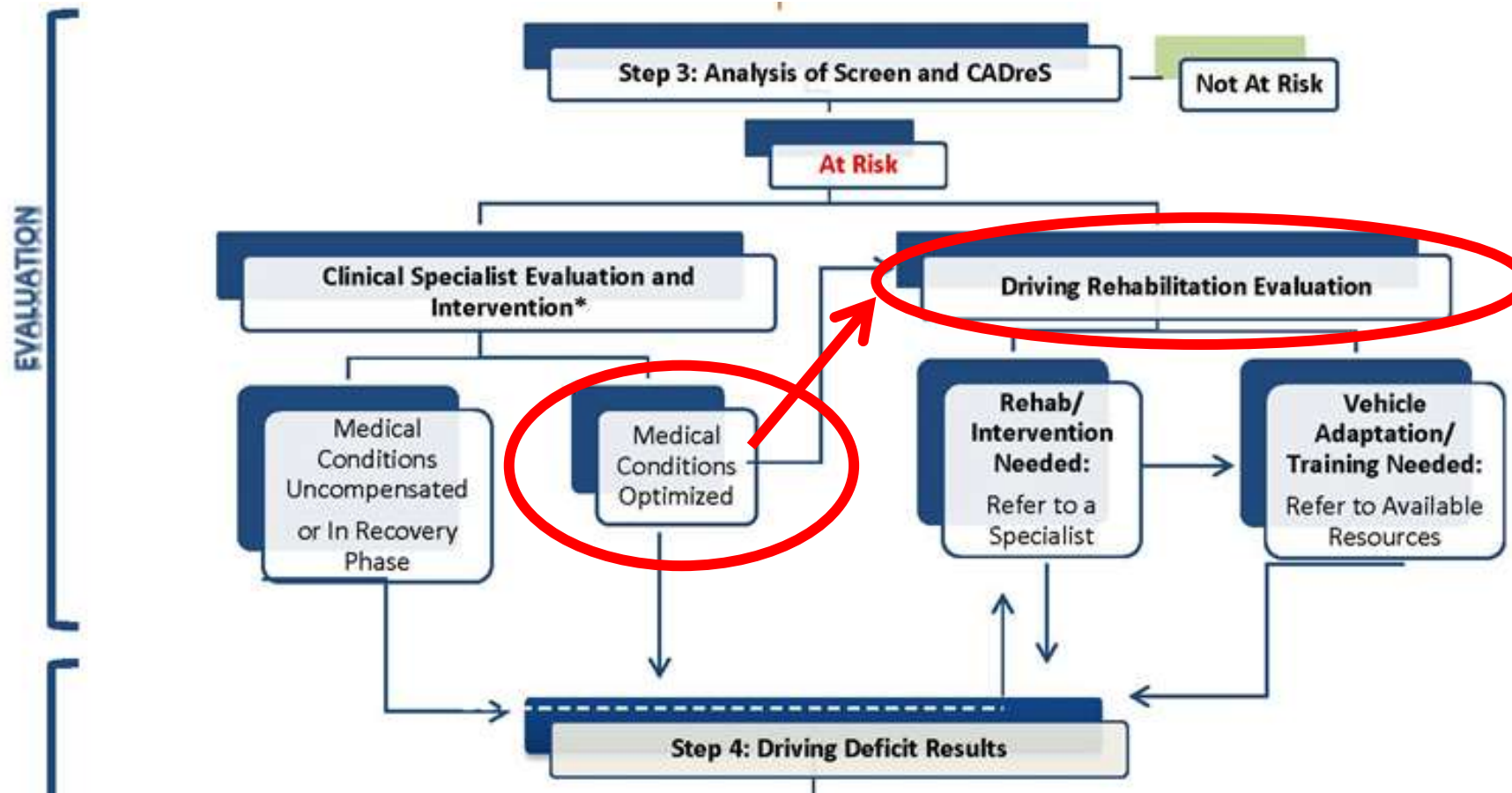
- Better understand & correct vision
- Better understand and address depression underlying slowness of response
- Optimize subskills and readiness for CDE

When optimized: Driving Specialist evaluation

- Outcome & Plan
- Fit to drive with/without restrictions
- Cessation of driving
- No driving ... Yet (recovery & repeat CDE)



Step 3: Analysis of Screen and CADReS



Driving Rehabilitation Specialist Evaluation *for driver facing changed or diminished abilities*



Social Determinants of Health

Clinician's address safe mobility



Chapter 2—Is the Older Adult at Increased Risk of Unsafe Driving?

- Explores how and why the older adult may be at increased risk
- Reviews physical, visual and cognitive domains and explores medical conditions and symptoms that may raise red flags
- Explores medications
- Offers a chart of organ systems and symptoms

Table 2.2 - Questions About Driving

Exploratory Questions

How did you get here today?

Do you drive?

How much do you drive?

Do you drive to the store? hairdresser? bank?

Chronic Medical Conditions

Older adults may require focused assessments to determine the impact of the following chronic medical conditions on their level of

Table 2.3 - Chronic Medical Conditions that May Impact Driving

Medical Condition	Examples
Diseases/conditions affecting vision	Cataracts Diabetic retinopathy Macular degeneration Glaucoma Retinitis pigmentosa Field cuts Low visual acuity even after correction

Medications

Many nonprescription and prescription medication drug metabolism and excretion, and dosages may n more information on each medication class that ma

- Anticholinergics
- Anticonvulsants

Chapter 3—Screening and Assessment of Functional Abilities for Driving

- A deep dive into assessment and evaluation
- Refusal of assessment?
- Self assessment vs. clinical assessment vs. comprehensive assessment
- Assessment tools for screen reviewed with scoring and recommendations in chapter 4

*Three key functional areas are considered as the foundation for determining fitness to drive: **vision, cognition, and motor/somatosensory function**. Any impairment in these areas has the potential to increase the older adult's risk of being involved in a crash and/or lost.*

Chapter 4—Clinical Interventions

- A deep dive into the clinical assessment of driver related skills (CADRES)
- The screening and assessment process following the Plan for Older Driver Safety (PODS) explored in detail

Motor and sensory ability, vision, and cognition are all important for driving. However, they may not be equally important for a particular older adult. Depending on the older adult's medical conditions, one area of function may require greater attention than another. Depending on the assessment outcome in each area, the outcome action may be different.

Chapter 5—Driver Rehabilitation

- A deep dive into driving rehabilitation, the skills and training of specialists and the complexity of determining candidacy to benefit for a comprehensive driving evaluation (CDE)
- The Spectrum of Decision Indicator model called OT-DRIVE
- The components of the CDE
- The vehicle & solutions
- The Spectrum of Driver Services, a guide for making the referral to the right program at the right time
- A brief review of funding and how to locate providers

A 2-sided resources for consumers and healthcare providers

Descriptions to distinguish services

Descriptions to distinguish the services of driver rehabilitation programs

Spectrum of Driver Services: Right Services for the Right People at the Right Time
A description consumers and health care providers can use to distinguish the type of services needed for an older adult.



	COMMUNITY-BASED EDUCATION	MEDICALLY-BASED ASSESSMENT, EDUCATION AND REFERRAL	SPECIALIZED EVALUATION AND TRAINING
Program Type	Driver Safety Programs Driving School	Driver Screen	Clinical IADL Evaluation
Typical Provider and Credential	Program specific credentials (e.g. AARP and AAA Driver Improvement Program) or Dept. of Motor Vehicle	Health care professional (e.g., physician, social worker, neuropsychologist)	Occupational Therapy Practitioner (Generalist or Driver Rehabilitation Specialist) Other health professional degree with expertise in Instrumental Activities of Daily Living (IADL)
Required Provider's Knowledge	Program specific knowledge Trained in course content and delivery	Knowledge of relevant medical conditions, assessment, referral, and / or intervention process. Understands the limits and value of assessment tools, including simulation, as a measurement of fitness to drive.	Applies knowledge of medical conditions with implications for driving. Assesses the cognitive, visual, perceptual, behavioral and physical limitations that may impact driving performance. Integrates the clinical findings with assessment of on-road performance. Synthesizes client and caregiver needs, needs to decisions about equipment and vehicle modification options available. Coordinates multiple/proxy providers and resources, including driver education, health care team, vehicle choice and modifications, community services, funding / papers, driver licensing agencies, training and education, and caregiver support.
Typical Services Provided	1) Classroom or computer based instruction for licensed drivers; review of rules of the road, driving techniques, state laws, etc. 2) Educated with awareness, choices, and capability to self-test. 3) Remedial Programs (e.g., license reinstatement course for teens / adults, license point reduction course)	1) Counsel on risks associated with specific conditions (e.g., medications, fractures, joint surgery). 2) Investigate driving risk associated with changes in vision, cognition, and sensory-motor function. 3) Determine actions for the at-risk driver: - Refer to IADL evaluation, driver rehabilitation program, and / or other services. - Discuss driving cessation, provide access to counseling and education for alternative transportation options. 4) Follow reporting / referral structure for licensing recommendations.	1) Evaluate and interpret risks associated with changes in vision, cognition, and sensory-motor functions due to acute or chronic conditions. 2) Facilitate remediation of deficits to enhance client readiness for driver rehabilitation services. 3) Develop an individualized transportation plan considering client diagnosis and risks, family caregiver, environmental and community options and limitations. - Discuss measures for vehicle adaptations (e.g., wobble lift). - Facilitate client training on community transportation options (e.g., mobility managers, demand-friendly transportation). - Discuss driving cessation. For clients with poor well-being, collaborate with caregivers on cessation strategies. - Refer to driver rehabilitation program. 4) Document driver safety risk and recommended intervention plan to guide further action. 5) Follow professional ethics on referrals to the driver licensing authority.
Outcome	Provides education and awareness.	Enhances skills for healthy drivers.	Indicates risk or need for follow-up for non-ready at-risk drivers.
Outcome	Provides education and awareness.	Enhances skills for healthy drivers.	Screening fitness to drive and provide rehabilitation services.

ADED - Health professional degree with specialty training in driver evaluation and rehabilitation. *CDD - Certified Driver Rehabilitation Specialist (Credentialled by ADED) Association for Driver Rehabilitation Specialists. **CCDM - Specialty Certified in Driving and Community Mobility by AOTA (American Occupational Therapy Association).
*Quality Approved Provider by NHTSA, National Mobility Equipment Dealer Association.
Driver Rehabilitation Programs: Driving Program Model, Services, and Expertise. Occupational Therapy in Health Care, 26(2), 177-182, 2014.

Spectrum of Driver Rehabilitation Program Services
A description consumers and health care providers can use to distinguish the services provided by driver rehabilitation programs which best fits a client's need.



Program Type	DRIVER REHABILITATION PROGRAMS (Determines fitness to drive and / or provide rehabilitative services.)		
Levels of Program and Typical Provider Credential	BASIC	LOWTECH	HIGH TECH
Typical Provider and Credential	Provider is a Driver Rehabilitation Specialist (DRSP) with professional background in occupational therapy, other allied health field, driver education or a professional level of CDEE or CC-DM with DSR**.	Driver Rehabilitation Specialist, Certified Driver Rehabilitation Specialist (CDRS) with professional background in occupational therapy with Specialty Certification in Driving and Community Mobility, or in combination with ILL. Certification in Driver Rehabilitation is recommended as the provider for comprehensive driving evaluation and training.	Driver Rehabilitation Specialist, Certified Driver Rehabilitation Specialist*, Occupational Therapist with Specialty Certification in Driving and Community Mobility*, Occupational Therapist with Specialty Certification in Driving and Community Mobility*. Certification in Driver Rehabilitation is recommended as the provider for comprehensive driving evaluation and training with advanced skills and expertise to complete complex client and vehicle evaluation and training.
Program Services	Offers driver evaluation, training and education, with or without adaptive driving aids that do not affect operation of primary or secondary controls (e.g., seat cushions or additional mirrors). May include transportation planning (destination and options), cessation planning, and recommendations for clients who plan to ride as passengers only.	Offers comprehensive driving evaluation, training and education, with or without adaptive driving aids that affect the operation of primary or secondary controls, vehicle ingress / egress, and mobility device storage / movement. May include use of adaptive driving aids such as seat cushions or additional mirrors. At the low tech level, adaptive equipment for primary control is typically mechanical. Secondary controls may include wireless or remote access. May include transportation planning (destination and options), cessation planning, and recommendations for clients who plan to ride as passengers only.	Offers a wide variety of adaptive equipment and vehicle options for comprehensive driving evaluation, training and education, including all services available in low tech and basic programs. At this level, providers have the ability to alter positioning of primary and secondary controls based on client's need or ability level. High tech adaptive equipment for primary and secondary controls includes devices that meet the following conditions: 1) capable of controlling vehicle functions or driving controls, and 2) consists of a programmable computerized system that interfaces / integrates with an electronic system in the vehicle.
Access to Driver's Position	Requires independent transfer into DEM* driver's seat in vehicle.	Addresses transfer, seating and position into DEM* driver's seat. May make recommendations for sensitive devices to access driver's seat, improved positioning, wheelchair restraint systems, and / or mechanical wheelchair locking devices.	Access to the vehicle typically requires step or lift and may require adaptation to DEM driver's seat. Access to driver position may be dependent on use of a transfer seat base, or clients may drive from their wheelchair. Provider evaluates and recommends vehicle structural modifications to accommodate products such as ramps, lifts, wheelchair and scooter holds, transfer seat bases, wheelchairs suitable to utilize as a driver seat, and / or wheelchair restraint systems.
Typical Vehicle Modifications: Primary Controls Gas, Brakes, Steering	Uses DEM* controls.	Primary driving control examples: A) mechanical gas / brake lever control; B) left foot accelerator pedal; C) pedal extensions; D) park brake lever or electronic park brake; E) steering device (spinner knob, tri-plate, C-cuff).	Primary driving control examples (in addition to low tech options): A) powered gas / brake systems; B) power park brake integrated with a powered gas / brake system; C) variable effort steering systems; D) reduced diameter steering wheel, horizontal steering, steering wheel extension, joystick controls; E) reduced effort brake systems.
Typical Vehicle Modifications: Secondary Controls	Uses DEM* controls.	Secondary driving control examples: A) remote horn button; B) turn signal modification (remote, crossover lever); C) remote wiper controls; D) gear selector modification; E) key / ignition adaptations.	Electronic systems to access secondary and accessory controls. Secondary driving control examples (in addition to low tech options): A) remote panels, touch pads or touch arrays that interface with DEM* electronics; B) wiring extensions for DEM* electronics; C) powered transmission shifter.

DRSP - Health professional degree with specialty training in driver evaluation and rehabilitation. *CDRS - Certified Driver Rehabilitation Specialist - Credentialled by ADED (Association for Driver Rehabilitation Specialists). **CCDM - Specialty Certified in Driving and Community Mobility by AOTA (American Occupational Therapy Association). *DEM - Original Equipment installed by Manufacturer.
**US Licensed driving instructor.

Driver Rehabilitation Programs: Driving Program Model, Services, and Expertise. Occupational Therapy in Health Care, 26(2), 177-182, 2014.

Chapter 6—Advising the Older Adult About Transitioning from Driving

- Useful steps and strategies for counseling older drivers
 - In planning & in stopping
- Importance & value of the team approach (including driver and their supports)
- Resources supporting the cessation discussion, the behavior changes needed to comply
- A sample letter

Table 6.1. Transportation Alternatives

- Walking
- Train/subway
- Bus

Table 6.2. Family/Caregiver Assistance

- Encourage family members and caregivers to promote the health and safety of the older adult by endorsing clinician recommendations and assisting in securing needed transportation.
- Include caregivers in the mobility counseling process.

Table 6.3. Tips to Reinforce Driving Cessation

- Give the older adult and caregiver a written prescription that states: "Do Not Drive. Your Safety and the Safety of Others." This acts as a reminder for the older adult and emphasizes the strength of your message.
- Remind the older adult that this recommendation is for his or her safety and the safety of other drivers.
- Ask the older adult driver how he or she might feel if he or she were to get in an accident, injure himself, herself, or someone else.
- Point out the economic advantages of not having a car, which will eliminate expenses including gas, maintenance (oil changes, tires, and tune-ups), insurance, registration fees, financing expenses, and depreciation of the car's value.
- Have a plan in place that involves caregiver support for alternative transportation.

Chapter 7—Ethical and Legal Issues

- Ethical duties
- Duty to protect
 - The patient
 - The public
- Issues of confidentiality
- Concerns about reporting
- Know and comply with state reporting laws
- Informing drivers and state licensing agencies
- Document diligently!

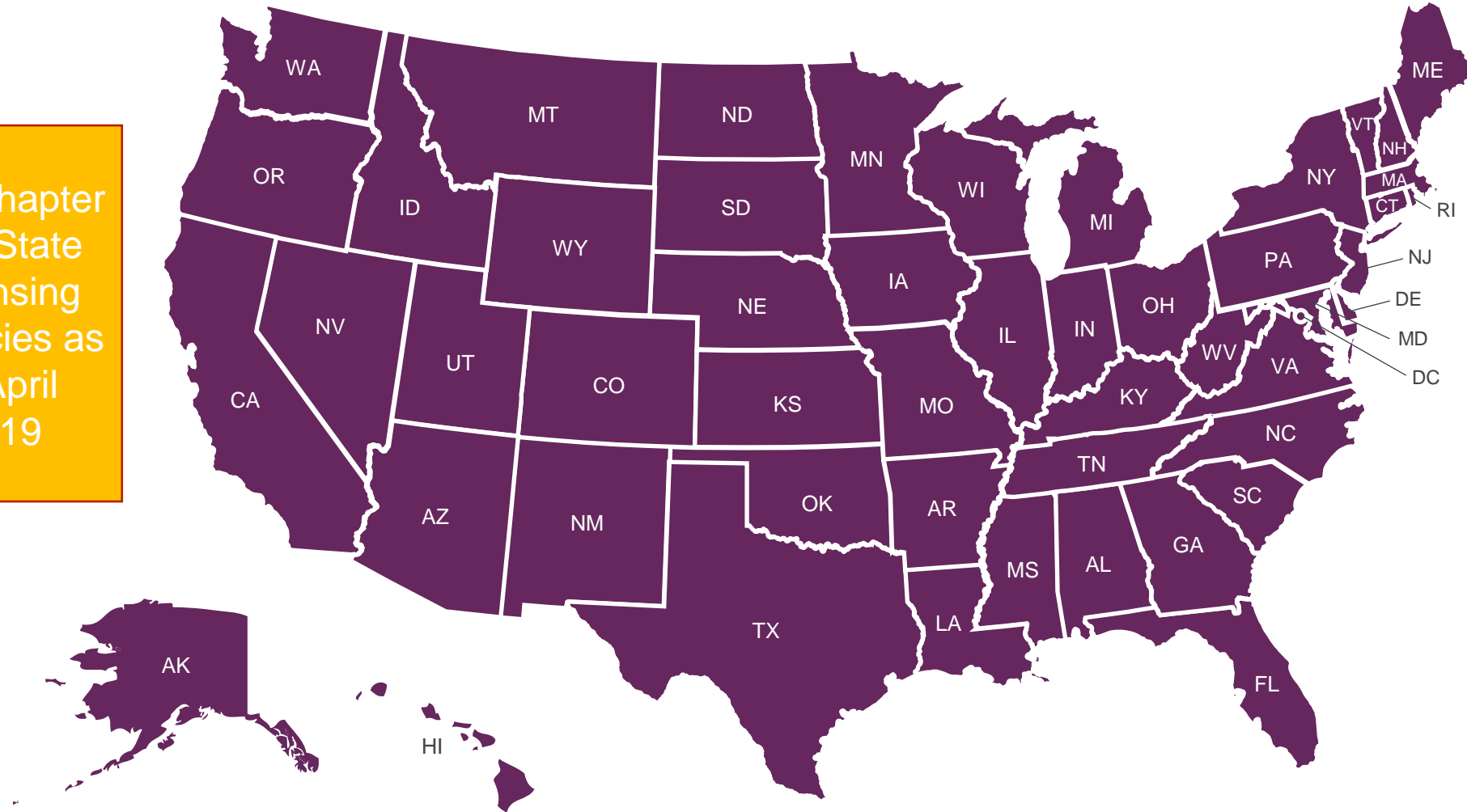
Table 7.1 Glossary of Terms

Anonymity and legal protection	Several states offer anonymous reporting and/or immunity to maintain the confidentiality of the reporter, unless otherwise specified.
Driver rehabilitation programs	These programs, run by DRS's, help identify at-risk drivers and provide compensatory techniques. Drivers typically receive a clinical evaluation, vehicle modifications and training. (For more information on driver rehabilitation programs, see the AOTA website.)
Duty to protect	In certain jurisdictions, physicians have a legal duty to warn identifiable third parties. ⁶ With respect to driving, physicians should be aware of their duty to protect patients with guidance on their duty to protect.
Good faith	Honesty and respect in all professional interactions ⁴²
Immunity for reporting	Many states exempt physicians from liability for civil damages for reporting a patient to the state licensing agency.
Medically impaired driver	A driver who is suffering from cognitive and/or functional impairment that may affect their ability to drive safely.

Chapter 8—State Licensing and Reporting Laws

50 different Guidelines for licensing and renewal

This chapter lists State Licensing Agencies as of April 2019



Chapter 9—Medical Conditions, Functional Deficits, and Medications That May Affect Driving Safety

- Extensive lists of information on
 - specific medical conditions
 - functional deficits (e.g., deficits in vision, cognition, or motor function)
 - medications that may have an effect on driving safety

REFERENCE TABLES OF MEDICAL CONDITIONS, FUNCTIONAL DEFICITS,

Various medical conditions and/or functional deficits are covered in the following sections listed at the end of the discussion for that condition and cross-referenced to Section 9.10.

Section 1: [Vision and Hearing Loss](#)

Section 2: [Cardiovascular Disorders](#)

Section 3: [Cerebrovascular Disorders](#)

Section 4: [Neurological Disorders](#)

Table 9.14 - Medications

Refer to [Table 9.13](#) for a full list of the PDI symptoms for each of the medication classes discussed below.

Anticholinergics

Many prescription and over-the-counter medications have several medication classes such as antidepressants (e.g., tricyclic antidepressants), antipsychotics (e.g., oxybutynin, tolterodine, trospium, darifenacin), first-generation antihistamines (e.g., chlorpheniramine, dimenhydrinate, diphenhydramine, doxylamine), antispasmodics (e.g., belladonna alkaloids, atropine, hyoscyamine), and antiparkinsonian agents (e.g., trihexyphenidyl). In most cases, these medications are available.

Subtle deficits in attention, memory, and reasoning may occur. Delirium can also occur in older adults.

Anticonvulsants

Older adults should temporarily cease driving during the initial period of treatment and/or during the risk of recurrent seizure and/or potential medication effects. Driving should resume only after recurrent seizure during medication withdrawal or change of medication.

Chapter 10—Meeting Future Transportation Needs of Older Adults

- This chapter discusses the research, initiatives, applications, and system changes deemed essential for improving driving safety of older adults, such as:
 - Vehicle designs
 - Improved clinician tools for assessment
 - Increased access and affordability of services
 - The role of driving simulators
 - Enhanced role of state licensing agencies to promote safety
 - Enhanced role of the Medical Advisory Board
 - Awareness needs: medications, self-regulation, planning
 - Better alternatives

The Five A's of Senior-Friendly Transportation*

Availability: exists and available when needed

Accessibility: can be reached and used

Acceptability: standards, including cleanliness and safety

Affordability: Deals with costs

Adaptability: can be modified or adjusted to meet special needs

* Source: *Supplemental Transportation Programs for Seniors*, The Beverly Foundation

Appendix A & B

- **Appendix A**
 - ✓ CPT® Codes
- **Appendix B : Patient and Caregiver Educational Materials**
 - ✓ Safety Tips for Older Drivers
 - ✓ Testing Driving Safety
 - ✓ Becoming a Non-Driver
 - ✓ Tips for Discussing Driving Cessation
 - ✓ Resources Tip Sheet
 - ✓ How to Understand and Influence Older Drivers
 - ✓ 10 Tips for Aging Well



Appendix C : Clinical Team Resources

Many of the items discussed in the Guide, including the screening tools and explanations for administration and scoring.

- CADReS Score Sheet
- Table of Selected Studies Supporting the use of Screening Tools in CADReS
- Medical Advisory Board Sample Letter
- Modified Driving Habits Questionnaire
- MoCA - Administration and Scoring Instructions
- MoCA – Test
- Adaptive Equipment to Compensate for Impairments in Motor Performance
- Adaptive Illustrations
- NHTSA Brochure - Adapting Motor Vehicles for Older Drivers
- Sample Driving Cessation Plan
- Snellen Chart
- Snellgrove Maze Test and Instructions
- Spectrum of Driver Services - Right Services for the Right People at the Right Time
- Trail-Making Test for Screening, Part A and B - Administration and Instructions
- Trail-Making Test - Part A
- Trail-Making Test - Part B
- Capacity and Fitness to Drive a Motor Vehicle - VA Handout

The image shows a portion of the Montreal Cognitive Assessment (MOCA) form. The top section is titled 'MONTREAL COGNITIVE ASSESSMENT (MOCA®) Version 8.1 English'. It includes fields for Name, Education, Sex, Date of birth, and Date. The 'VISUOSPATIAL/EXECUTIVE' section contains a cube drawing and a trail-making test with points labeled A through E. The 'NAMING' section shows drawings of a lion, a rhinoceros, and a camel. The 'MEMORY' section is partially visible at the bottom.

MAZE TASK®

The diagram shows a square maze with a start point at the top and an exit point at the bottom. An arrow points to the start point, and another arrow points to the exit point.

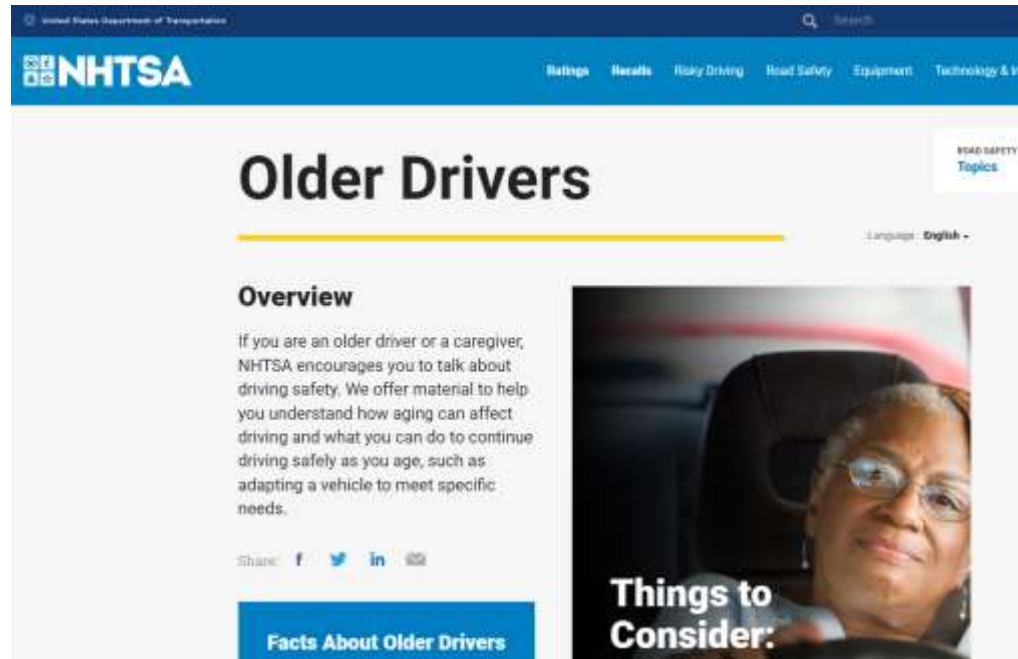
Snellgrove Maze Test
Administration Instructions

The Maze Test was developed as a pencil and paper test of attention, visuoconstructional ability, and executive functions of planning and foresight. Participants complete a simple demonstration (or practice) maze first to establish the rule set, and then complete the Maze Task. Performance is measured in time (in seconds), using a timer or stopwatch, and the total number of errors. Errors are determined by the number of times a participant enters a dead end or fails to stay in the lines. Time to administer is 1–4 minutes. The Maze should be printed on an 8 × 11" paper with the Maze Test at least 5.5" square and the practice 4.5".

To administer the test, the Practice maze is placed in front of the participant in the correct orientation. The participant is provided with a pen, and the administrator says:

"I want you to find the route from the start to the exit of the maze. Put your pen here at the start (point to the start). Here is the exit of the maze (point to the exit). Draw a line representing the route from the start to the exit of the maze. The rules are that you are not to run into dead ends (point to a dead end) or

<https://www.nhtsa.gov/road-safety/older-drivers>



The screenshot shows the NHTSA website page for "Older Drivers". The page features a blue header with the NHTSA logo and navigation links. The main content area has a large heading "Older Drivers" and an "Overview" section. The overview text states: "If you are an older driver or a caregiver, NHTSA encourages you to talk about driving safety. We offer material to help you understand how aging can affect driving and what you can do to continue driving safely as you age, such as adapting a vehicle to meet specific needs." Below the text are social media sharing icons and a blue button labeled "Facts About Older Drivers". To the right of the text is a photograph of an older woman driving a car, with the text "Things to Consider:" overlaid on the image.



Facts About Older Drivers

7,214

PEOPLE 65 AND OLDER KILLED IN TRAFFIC CRASHES IN 2019 (20% OF ALL TRAFFIC FATALITIES)

[Source](#)

THE TOPIC

Medical Conditions

If you are an older driver with a medical condition, or if you are a concerned caregiver, NHTSA has several resources for safer driving.

These resources will help you learn how medical conditions can affect driving, what to do if you're experiencing or witnessing certain warning signs, and where to learn more about certain medical conditions. These resources also provide information about transportation alternatives and how to get help with transportation.

Information on Driving with Medical Conditions

- [Alzheimer's Disease](#) (PDF, 198K)
- [Arthritis](#) (PDF, 217K)
- [Cataracts](#) (PDF, 217K)
- [Diabetes](#) (PDF, 197K)
- [Glaucoma](#) (PDF, 183K)
- [Macular Degeneration](#) (PDF, 189K)
- [Parkinson's Disease](#) (PDF, 192K)
- [Sleep Apnea](#) (PDF, 195K)
- [A Stroke](#) (PDF, 178K)

RELATED TOPICS

[DROWSY DRIVING](#)
[ADAPTED VEHICLES](#)

Occupational Therapy Checklist of Community Mobility Skills (CCMS)

Objective: This tool merges individual functional mobility with demands required by transportation type to assist in identifying transportation options that support and/or increase safe and effective community mobility.

Directions: Indicate the level of independence/assistance needed for each functional area. Identify the types of transportation options available in the community (indicate the support offered if possible). Then, highlight transportation options most feasible to support the individual's mobility. Consider also that each destination may require a different transportation option.

Functional Areas: Is the individual able to:	Perform Independently	Perform with assistance	Perform with difficulty/unable	Comments
1. Walk one block				
2. Walk briskly to cross street with pace of "Walk" signal				
3. Climb two steps				
4. Climb two sets of stairs				
5. Physically maneuver in a new environment				
6. Get in and out of a car				
7. Ready and independently wait near entrance/exit				
8. Secure own seatbelt				
9. Manage personal mobility devices (e.g., cane, walker, wheelchair)				
10. Read and decipher a schedule				
11. Read and decipher a map				
12. Manage money/money card				
13. Recognize the need and have the ability to call 911				
14. Consistently use a cellphone				
15. Communicate all needs with driver				
16. Problem solve when a problem occurs with transportation				
17. Know, recognize, and communicate location (pickup and destination)				
18. Communicate identification information and/or phone number				
19. Communicate date and time of trip				

If impairments interfere with safe driving, They may also interfere with "taking the bus"

Available at www.aota.org

*Can they walk a block?
Read a schedule?
Manage unexpected?
Ask for help?
Etc...*

- independent
- with assistance
- difficulty/no

Public Transportation (e.g., bus, subway, train) **Transportation Network Services (TNS) (e.g., taxi, Uber, Lyft, Go-Go Grandparent)** **Supplemental/Assisted Ride Programs offer:**

Requires individual to be able to:
 A. Walk various lengths to the designated stops for pickup and destinations
 B. Handle one to four steps to board/get off
 C. Have good mobility, including balance
 D. Appropriately handle a crowded social environment or the need to wait
 E. Manage money and/or money card**
 F. Communicate needs of when they need to stop**
 G. Have higher cognitive skills for complex environments**
 H. Read a schedule and/or route**
 I. Cognitively adjust if service is running behind or ahead of schedule**

Requires individual to be able to:
 A. Walk at least short distances to locate car
 B. Enter and exit a car independently
 C. Fasten own seatbelt with no assistance
 D. Manage all mobility equipment with minimal assistance
 E. Communicate needs to driver including destination and location**
 F. Navigate unfamiliar environments**
 G. Manage money/money card/electronic account**
 H. Able to recognize the need and have the ability to call 911**
 I. Consistently use a cell phone
 J. Problem solve unexpected events

I. Door through door—The driver will assist individual to and from their home as well as at destination; may provide limited assistance with a new environment.
II. Door to door—The driver will assist individual in/out of car and to door; however, rider has to navigate to and from destination independently.
III. Curb to curb—The driver will pick up and drop off individual at curb.

Guidance Statements for Public Transport:
 I. If the individual can perform abilities 1 through 20, they will likely be successful in using public transportation.
 I. If the individual can perform abilities 1 through 9 independently, but needs assistance with abilities 10 through 20, a companion is recommended.
 I. If the individual can perform abilities 1 through 9 independently, with potential to learn abilities 12, 13, 14, and 15 for a specific routine route, consider mobility management.

Guidance Statements for TNS:
 I. If the individual can perform abilities 1 through 20, they will likely be successful in using TNS.
 I. If the individual can perform abilities 1 through 9 independently, but need assistance with abilities 10 through 20, a companion is recommended.
 I. If the individual can perform abilities 1 through 9 independently, identifies specific destination needs and can use a phone, programs with added support may be successful (such as Go-Go Grandparent)

Required skills vary depending on type of transportation; individuals should be able to:
 A. Transfer in/out of a car with limited assistance from driver
 B. Buckle their seatbelt with limited assistance from driver
 C. Identify self and contact information
 D. Call and schedule a ride**
 E. Appropriately handle money/money card/ticket system**
 F. Communicate needs during the trip with the driver**
 G. Report location to driver**
 H. Use a cell phone**
 I. Handle medical/mobility equipment such as a cane, walker or wheelchair with limited assistance from driver
 J. Able to recognize the need and have the ability to call 911**

 Transportation while seated in wheelchair: consult accessible transit, paratransit, or Driving Rehabilitation

indicates could be completed by a companion escort/caregiver

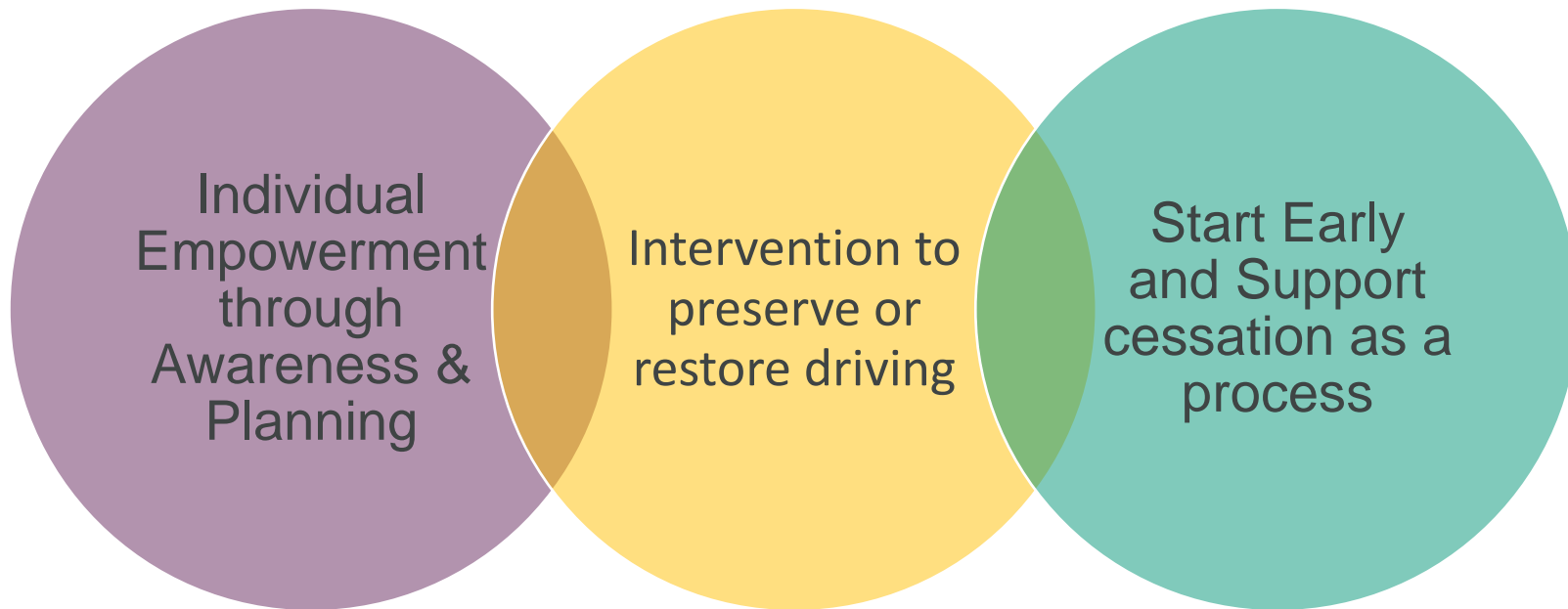
Guidance Statements for Ride Programs: Program services and supports vary greatly. Typically a needs assessment is conducted to set up an individualized program. The rider may then consistently access the services.

What are the demands of transportation options?
 What supports are available?
 Guides questions to ask!

Clinicians & Practitioners Build awareness & Prevent Driving Disability



Clinicians: Its about Safe Mobility, not Stopping



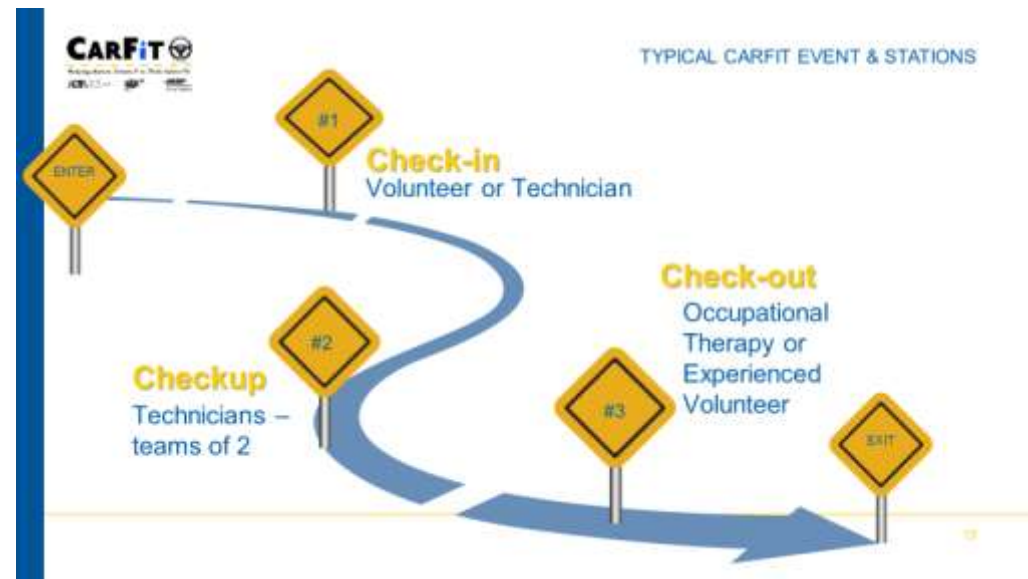
CarFit – supports drivers driving

Safety Education

- AAA, AARP, AOTA
- Safety education on person-vehicle fit
- Introduction to solutions
- **Get Involved!!!**



www.car-fit.org



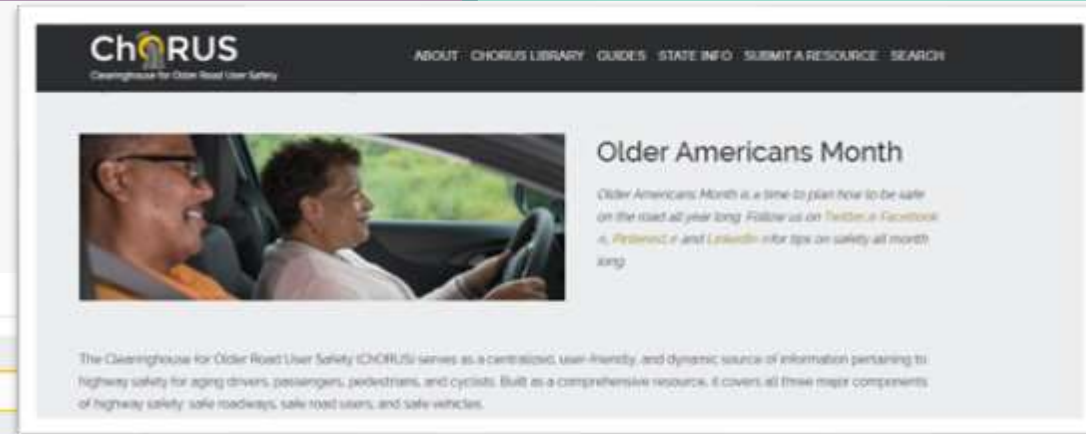
Transportation Planning, begin today!

- Plan for the road ahead
 - <https://planfortheroadahead.com/>
- CDC planning tool
- ChORUS planning tool
<https://www.roadsafeseniors.org/>

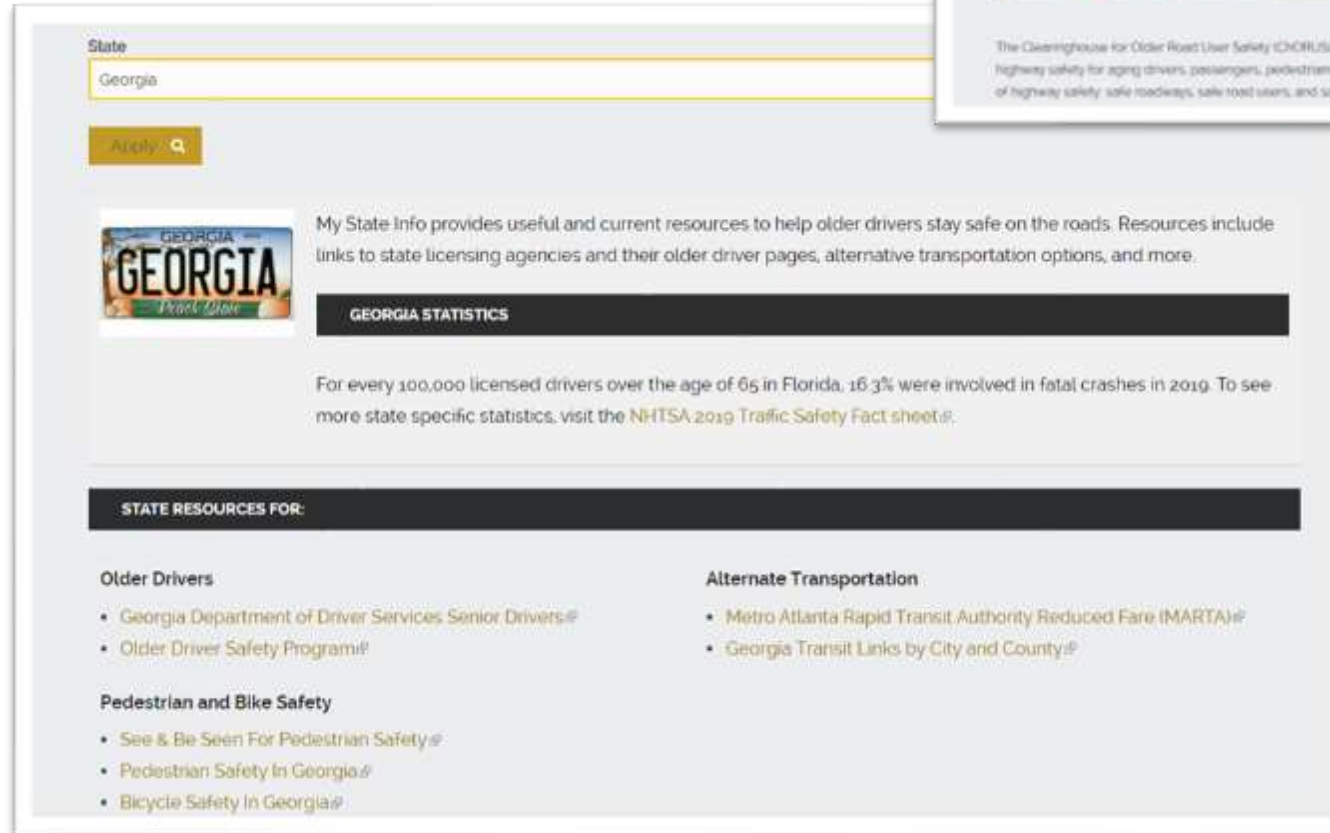


ChORUS

www.roadsafeseniors.org



The ChORUS website header features the logo and navigation links: ABOUT, CHORUS LIBRARY, GUIDES, STATE INFO, SUBMIT A RESOURCE, SEARCH. Below the header is a banner for Older Americans Month, featuring a photo of two elderly people in a car. The banner text reads: "Older Americans Month is a time to plan how to be safe on the road all year long. Follow us on Twitter, Facebook, LinkedIn, and LinkedIn for tips on safety all month long." Below the banner is a paragraph: "The Clearinghouse for Older Road User Safety (ChORUS) serves as a centralized, user-friendly, and dynamic source of information pertaining to highway safety for aging drivers, passengers, pedestrians, and cyclists. Built as a comprehensive resource, it covers all three major components of highway safety: safe roadways, safe road users, and safe vehicles."

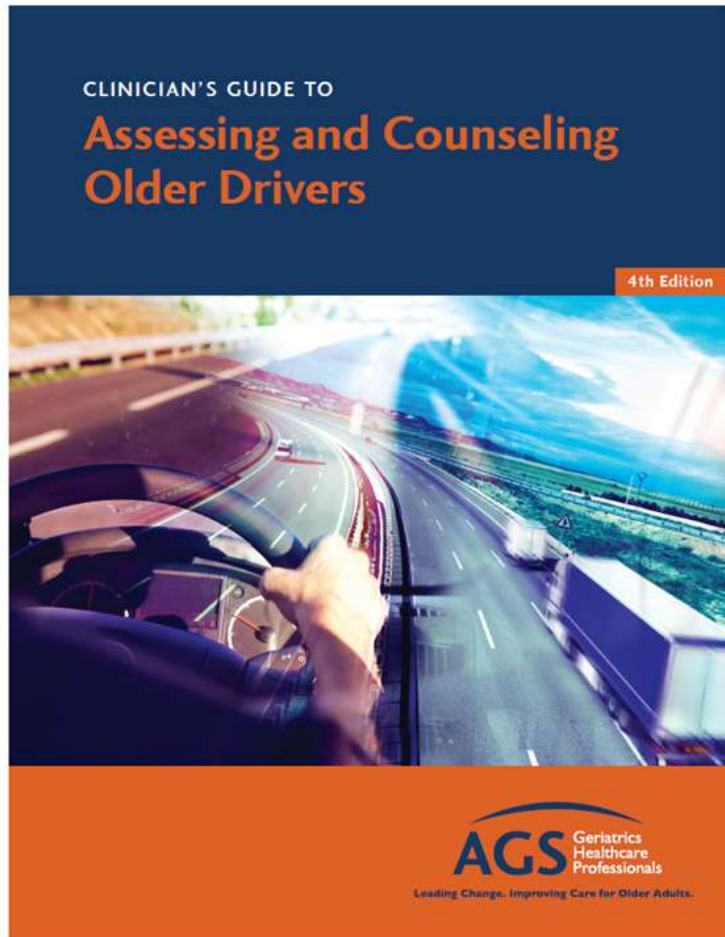


The screenshot shows the ChORUS website interface for the state of Georgia. At the top, there is a search bar with "Georgia" entered and a "Apply" button. Below the search bar is a "GEORGIA" graphic with the text "Practically Safe". To the right of the graphic is a paragraph: "My State Info provides useful and current resources to help older drivers stay safe on the roads. Resources include links to state licensing agencies and their older driver pages, alternative transportation options, and more." Below this is a "GEORGIA STATISTICS" section with a paragraph: "For every 100,000 licensed drivers over the age of 65 in Florida, 16.3% were involved in fatal crashes in 2019. To see more state specific statistics, visit the [NHTSA 2019 Traffic Safety Fact sheet](#)." Below the statistics is a "STATE RESOURCES FOR:" section with three categories: "Older Drivers" (Georgia Department of Driver Services Senior Drivers, Older Driver Safety Program), "Alternate Transportation" (Metro Atlanta Rapid Transit Authority Reduced Fare (MARTA), Georgia Transit Links by City and County), and "Pedestrian and Bike Safety" (See & Be Seen For Pedestrian Safety, Pedestrian Safety In Georgia, Bicycle Safety In Georgia).

The Clearinghouse for Older Road User Safety (ChORUS) is a project of the Roadway Safety Foundation, a non-profit located in Washington, DC. Support is provided by the U.S. Department of Transportation's Federal Highway Administration (FHWA) and National Highway Traffic Safety Administration (NHTSA), with additional development and guidance supplied by New Editions Consulting, Inc. and a panel of Subject Matter Experts.



4th Edition



- Updated by the American Geriatrics Society in collaboration with the National Highway Traffic Safety Administration
- Interprofessional team-based care: medicine, nursing, social work, pharmacy, and occupational therapy, especially specialists in driving rehabilitation
- Updated Clinical Assessment of Driving Related Skills (CADReS) for vision, cognition and motor/sensory function
- Expanded focus on Planning for Older Driver Safety (PODS) using a decision algorithm for screening, evaluation and outcomes
- Updated recommendations and exemplars for medical conditions, medications, and patient education materials



Download your copy, be a part of the solution!

American Geriatrics Society
GeriatricsCareOnline.org



Thank you!

Elin Schold Davis

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AOTA Vision Statement

As an inclusive profession, occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living.



American
Occupational Therapy
Association