

# THE ROAD AHEAD: A DISCUSSION ABOUT COMPREHENSIVE DRIVING EVALUATIONS

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# Objectives

- ▣ Audient will:
  - Identify areas of impairment that negatively impact driving safety
  - State understanding of appropriate referrals for clinical driving assessment
  - State resources available for community mobility in their area

# The Need for Driving Assessments

## ▣ Growing need for intervention as our population ages

### ■ Statistics

- ▣ 1 in 4 people will be over 65 in 2050
- ▣ The rate of driver deaths in automobile crashes rises after age 60 and grows sharply as age increases
- ▣ For those ages 75 to 79, the rate of driver deaths per year is almost triple the rate for people ages 30 to 59
- ▣ For ages 80 and older (the fast growing age group) the rate is more than 4 times that of drivers ages 30 to 59



# Why the need to continue to drive?

- ▣ Sense of independence
- ▣ Social interaction
- ▣ Maintain health services
- ▣ Quality of life
- ▣ Identity

# Unique Challenges

- ▣ Driving is a privilege
- ▣ Public safety is a concern
- ▣ A person's self-rating of driving ability is not accurate in accessing unsafe driving issues
- ▣ Persons dealing with cognitive issues or executive thought processing may not recognize changes in their driving skills
- ▣ Thoughtful planning is the key to a smooth transition for mobility and transportation needs

# Warning Signs

- ▣ Forgetting how to locate familiar places
- ▣ Failing to observe traffic signs
- ▣ Making slow or poor decisions in traffic
- ▣ Driving at an inappropriate speed
- ▣ Becoming angry or confused while driving
- ▣ Hitting curbs
- ▣ Using poor lane control
- ▣ Making errors at intersections
- ▣ Confusing the brake and gas pedals
- ▣ Returning from a routine drive later than usual
- ▣ Forgetting the destination you are driving to during the trip

# Common Issues Impacting Driving Safety

- ▣ Physical decline
  - Weakness, disease, injury, amputation
- ▣ Visual decline
  - Cataracts, macular degeneration, glaucoma, visual field cuts
- ▣ Decline in cognitive abilities
  - Memory (short-term, long-term, direction), safety/judgement, processing time, divided attention/multi-tasking, knowledge of rules of the road

# Common Conditions

- ▣ Neurological
  - Stroke, dementia, Parkinson's disease, multiple sclerosis, neuropathy, brain tumor
- ▣ Musculoskeletal conditions
  - Amputation, arthritis
- ▣ Visual impairment
  - Glaucoma, cataracts, macular degeneration, visual field cuts
- ▣ Cardiac/Respiratory disease

# Having the Conversation

- ▣ Starting the conversation
  - Understand that this may be the first of many conversations about driving
  - Initiate a conversation to express concerns outside of the car or actual driving situation
  - Consider an evaluation by an objective third party
  - Discuss specific symptoms that may impair driving, slow response time, decreased endurance, near misses or weakness
  - Reinforce medical diagnoses. Ask the physician to write a letter or write a prescription stating that the person must not drive. You can use this for reinforcement during the conversation.

# When the conversation does not go well

- ▣ Be patient and firm. Demonstrate understanding and empathy
- ▣ Acknowledge the pain of this change
- ▣ As a last resort, take away the car keys, disable the car or remove the vehicle completely. When you do any of these things, be sure to provide safe, reliable alternative transportation

# Planning Ahead

- ▣ It is never too early to plan ahead and to start the conversation
- ▣ Involve family and close friends
- ▣ Develop an agreement for all to share that includes practical safety steps
  - Periodic driving evaluation
  - GPS monitoring system for the car
  - Alternative transportation options
  - Sign a driving contract

# Transportation Options

- ▣ Transition driving responsibilities to others
  - Family members
  - Friends
- ▣ Arrange taxi service
- ▣ Use special transportation services for older adults
- ▣ Reduce the need to drive by having prescription medicines, groceries or meals delivered

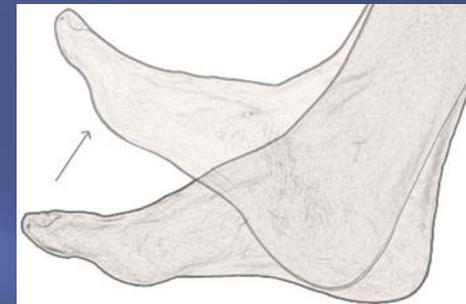
# Clinical Evaluation

- ▣ 2-3 hour evaluation performed by an occupational therapist/certified driving rehab specialist
- ▣ Cost: \$200 for clinical
- ▣ No longer need a physician's referral



# Assessment – Physical

- ▣ Strength
  - Manual Muscle Testing
- ▣ Range of Motion
- ▣ Coordination
  - Reaction time testing
  - DMV Guidelines
  - Emergency Reaction Time
    - ▣ (0.75 seconds)
- ▣ Sensation
- ▣ Balance
- ▣ Mobility
- ▣ Endurance
- ▣ Neck Flexibility



# Assessment – Visual

- ▣ Visual acuity
- ▣ Peripheral vision/Field of Vision
  - Visual neglect, homonymous hemianopsia
- ▣ Depth perception
- ▣ Contrast sensitivity
  - Daytime/nighttime vision/glare
- ▣ Visual perception
  - Visual memory, closure, figure ground

# Assessment – Cognition

- ▣ Memory
  - Long term, short term, directions
- ▣ Safety/judgement and problem solving
- ▣ Road sign recognition and regulations
- ▣ Divided attention and multi-tasking

# Assessment - Reaction Time

- ▣ Vericom Reaction Time Test
  - Motor Control
    - activate pedals and steering
  - Vision
    - Scanning
  - Cognition
    - Divided attention
    - Memory
    - Cognitive processing

# Possible Outcomes

## ▣ Full Clinical Evaluation

### ▪ On-road assessment

- ▣ Performed by a NC DMV certified driving instructor
- ▣ Recommended for clients with 'red flags' on clinical evaluation
- ▣ Out of pocket expense (\$150-\$400)
- ▣ Performed in the client's neighborhood when possible



## ▣ Driving with restrictions

- Daylight driving only
- Drive on local, familiar roads
- Drive within a \_\_\_ mile radius of home
- Limit/No highway driving
- Limit/No driving on roads with speeds over 45 mph
- Avoid driving in inclement weather; rain, snow, sleet
- Carry a cellphone for safety
- Limit conversations with other passengers

# Possible Outcomes

- ▣ Driving with adaptive equipment
  - Steering knob
  - Left foot accelerator
  - Hand controls
  - Blind spot mirrors/Expanded view mirror
- ▣ Discontinue driving
  - Community accessibility
  - Family/Friends/Caregivers

# NC DMV

- ▣ Clinical and on-road reports are shared with the referring physician, client and family members only
- ▣ The OT/CDRS is not permitted to share the results with NC DMV.
- ▣ Some states have mandatory DMV notification (diagnosis specific) *NC does not*

# Community Mobility Resources

- ▣ [Ridesinsight.org](http://Ridesinsight.org)
- ▣ Transportation Solutions for Caregivers
- ▣ National Association of Agencies on Aging
- ▣ American Occupational Therapy Association
- ▣ ALS Association Nationwide Chapter Locator
- ▣ AARP Mobility Resources

# Clinical Resources in NC

- ▣ Department of Veteran Affairs Medical Center (Veterans only)
  - Salisbury, NC
- ▣ Duke University Health Center at Lenox Baker
  - Durham, NC
- ▣ Frye Regional Rehabilitation Hospital
  - Hickory, NC
- ▣ Driver Rehabilitation Services, P.A.
  - McLeansville, NC
- ▣ Forsyth Medial Hospital
  - Winston-Salem, NC
- ▣ Care Partners Health Systems
  - Asheville, NC

# Duke Driving Program

- Melissa Werz, OTD, OTR/L
- Department of Physical and Occupational Therapy
  - Duke Health Center at Lenox Baker
    - 3000 Erwin Road
    - Durham, NC 27705
- Appointments: 919 684-2445
  - Information: 919 668-3988
    - Fax: 919 681-5555
  - [www.ptot.duhs@duke.edu](http://www.ptot.duhs@duke.edu)

# Questions

