Assessing the Older Driver

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Objectives

- Practical office evaluation.
- Testing and reporting
- Dementia and driving
- Strategies for counseling
- On-line resources
Despite common perception:
- Increased age does not cause higher crash rates
- Older drivers as a cohort account for a very small percentage of MVA’s

Insurance Institute for Highway Safety, Per capita rate of passenger vehicle crash involvements by driver age, 2010
The Problem

However, motor vehicle fatalities are significantly higher in the elderly.

Insurance Institute for Highway Safety, Police reported crashes 2006-2010
The Problem

- Growing number of older drivers
- Driving is often critical for independence
- With aging
  - Increased risk of medical problems that can affect driving ability
  - Increased risk of injury or death from a MVA
The Problem

- Studies show that self-regulation works for most, but not all drivers.

- Driving cessation has been associated with
  - isolation
  - depression
  - overall decline in health

- So... Should your patient stop driving? And if so, when?
Practical office evaluation

- Is your patient still driving?

- Red flags
  - Chronic medical conditions that affect driving
  - Medications that impair driving
  - Family member expressing concern
  - Observed difficulty with mobility
  - History of a MVA
Practical office evaluation

Driving history: From patient

- Are you comfortable driving?
- Do you restrict your driving in any way?
- Any close calls/accidents/citations?
- Do you ever get lost driving?
- Do signs or other cars sometimes seem to suddenly appear out of nowhere?
Practical office evaluation

- Driving history: From passengers in car
  - Drives too slowly, doesn’t keep steady speed
  - Follows too closely or drifts out of lane
  - Makes turns from wrong lane
  - Doesn’t stop at signals or stops for no apparent reason
  - Drives the wrong way against traffic
  - Confuses gas/brake pedal.
  - The “grandchild” question.
Practical office evaluation

- Medication review

- Physical exam
  - Vision
    - Acuity (PA law requires 20/40 or better)
    - Visual fields (PA law requires 120 degrees)
  - ROM, fine and gross muscle strength, sensation, and “get up and go” gait test.
  - Cognition
## 4Cs Screening Tool

<table>
<thead>
<tr>
<th>Points</th>
<th>Crash</th>
<th>Family Concern</th>
<th>Clinical Condition</th>
<th>Cognitive Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No crash</td>
<td>None</td>
<td>Very Good Health</td>
<td>Intact</td>
</tr>
<tr>
<td>2</td>
<td>Fender Bender</td>
<td>Mild—discussion</td>
<td>Medical Condition—arthritis, frailty, neuropathy</td>
<td>MCI/intact fct</td>
</tr>
<tr>
<td>3</td>
<td>Citation</td>
<td>Moderate—no passengers</td>
<td>Medical Issue—CVA, early AD, PD, MS</td>
<td>Functional Assistance</td>
</tr>
<tr>
<td>4</td>
<td>Crash(es)</td>
<td>Severe—quit</td>
<td>Very Poor Health—advanced AD, PD, MS</td>
<td>Functional Dependence</td>
</tr>
</tbody>
</table>

- **Family Concern & cognitive function independent predictors**
- **Score of ≥9 sensitivity 84% specificity 53%**

O’conner M, et al. The 4Cs (crash history, family concerns, clinical condition, and cognitive functions): A screening tool for the evaluation of the at risk driver. JAGS. 2010 58:1104-08.
Interventions

- Medication changes when appropriate.
- Vision deficits
  - Referral to an eye specialist
- Motor deficits
  - Referral to PT and/or OT
  - Studies are mixed, but there is moderate evidence that physical training improves driving performance.
Interventions

- For seizure disorder, law requires that the pt be seizure free for 6 months

- Referral for a professional driving evaluation

- Report to the DMV
Additional testing

- **OT driving assessment**
  - Cost is approximately $135
  - Local options:
    - Health South Harmarville – uses the computer based program "DriveABLE"
    - Center for Rehab Services – evaluates vision, cognition, sensation, gross and fine motor skills, gait, and driving knowledge.
On the road testing

- Certified driving instructors.
  - Local options:
    - Lazaar School of Driving (412) 487-5598
    - AA Driver Training Service (412) 731-7112
  - Cost is approximately $100-125
    - 2 hour driving test in instructor’s car
    - written report to physician with observations/recommendations
On the road testing

- OT or certified driving rehab specialist:
  - Local options:
    - UPMC CDRS, The Adaptive Driving Program. (412) 864-3068 or (412) 647-1312
    - Brant’s Driving School – rents space in Health South Harmarville  1-877-395-7011
  - Cost is approximately $330-350
    - O.T. evaluation followed by a 2 hr driving test
    - Written report that may include recommendations as to how to improve patients’ function and/or adapt their car.
Department of Motor Vehicles

Possible outcomes for reporting in PA:

1. Problem specific form sent to patient. Requires MD appt for completion within 30 days.
2. Patient told to undergo a driving test within 30 days.
3. Patient’s license immediately recalled.
INITIAL REPORTING FORM

PLEASE TYPE OR PRINT IN BLUE OR BLACK INK ALL INFORMATION

THIS FORM APPROVED BY THE MEDICAL ADVISORY BOARD 4/13/12
PROVIDER: For more information relating to Medical Reporting, visit http://www.dmv.state.pa.us/centers/medicalReportingCenter.shtml.

SECTION A  PATIENT INFORMATION

DRIVER’S LICENSE NO.                      LAST NAME(S)                      JR. ETC                      FIRST NAME

HEIGHT                                      SEX                        EYE COLOR                       DATE OF BIRTH                      TELEPHONE NUMBER                      SOCIAL SECURITY NUMBER

FEET   INCHES                  MONTH DAY YEAR

STREET ADDRESS: P.O. Box number may be used in addition to the actual address, but cannot be used as the only address.

CITY                                      STATE    ZIP CODE

DATE OF EXAMINATION: ____________________

How long have you been treating the patient? ____________________

SECTION B

DIAGNOSIS OF DISORDER OR DISABILITY: Please Check (✓) Appropriate Items

[☐] Loss or Impairment of a Foot, Leg, Finger,

Thumb, or Hand - Condition: ____________________

[☐] Diabetes Mellitus

[☐] Cerebrovascular Disease

[☐] Cardiovascular Disease

[☐] Loss of Consciousness - Cause: ____________________

[☐] Neurological Disorder

[☐] Neuromuscular Disorder: ____________________

[☐] Single Seizure: Date of Seizure: ____________________

[☐] Seizure Disorder: [☐] YES [☐] NO Date of Last Seizure: ____________________

NOTE: A seizure disorder- More than one seizure or a single seizure of electrically diagnosed epilepsy.

Patient meets following seizure waiver, therefore no action should be taken on the driving privilege:

[☐] 2 year history of strictly a nocturnal pattern of seizures or a pattern of seizures occurring only immediately upon awakening

[☐] 2 year history of a specific prolonged aura accompanied by sufficient warning

[☐] Patient has been seizure free for the previous 6 months and above referenced seizure occurred as a result of a prescribed change in or removal from medication. Patient’s previous medication has been re instituted.

[☐] Patient has been seizure free for previous 6 months and above referenced seizure occurred during or concurrent with a

nonrecurring transient illness, toxic ingestion or metabolic imbalance.

Should this individual cease driving immediately? ____________________

If not, does the condition(s) warrant further investigation of driving competency by the Department? ____________________

SECTION C

Please indicate whether this person has any of the following:

Alcohol Use: [☐] Yes [☐] No

Drug or Controlled Substance Use: [☐] Yes [☐] No

SECTION D

ALL INFORMATION IS CONFIDENTIAL AS PROVIDED IN THE PA VEHICLE CODE, SECTION 1518(d)

HEALTH CARE PROVIDER’S NAME

SPECIALTY

HEALTH CARE PROVIDER’S LICENSE NUMBER

STREET ADDRESS

CITY

STATE    ZIP CODE

TELEPHONE NUMBER

FAX NUMBER

I hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief. I understand that the statements made herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities) punishable by a fine up to $2,500 and/or imprisonment up to 1 year.

Health Care Provider’s Signature ____________________ Date ____________________

Return this form to the address listed at the top of the form or fax to (717) 705-3415
Dementia and Driving

- These are the most difficult cases and where we need to focus our efforts.

- A useful resource for families:
  - The Hartford Foundation: At the Crossroads. A Guide to Alzheimer’s Disease, Dementia and Driving
Dementia and Driving

- Cognition assessment tools – which one to use?
  - No cognitive assessment tool has robust data to support its use in differentiating safe from unsafe drivers with dementia.

- Cognitive domains most important for driving include:
  - Visuospatial
  - Executive functioning
  - Mental flexibility
  - Functional ability
Dementia and Driving

- **Cognition assessment**
  - Clock drawing test
    - 65-98% specific, 64-70% sensitive
  - Trail making A and B
    - Mixed results on studies
    - B better than A
  - MOCA
    - No good studies
  - Complete neuropsychological testing
Dementia and Driving

- Impulse control
- Judgment and problem solving
- Functional ability
  - ADL’s and IADL’s
  - Ability to participate in community and usual hobbies.
Dementia and Driving

- In patients with:
  - MCI
  - Intact functional status
  - No or mild family concerns

- Can continue to drive with f/u in 6 months or less
Dementia and Driving

- **In patients with:**
  - Mild to moderate dementia
  - Decline in daily functions
  - Mild to moderate family concerns

- **Refer for a driving test/report to DMV**

- **In pts with severe dementia or dependence on others, driving should cease.**
Counseling

- Focus on planning/preventative medicine
- Focus on safety
- Focus on correctable medical problems:
  - Adjust medications or timing of medications
  - Improve vision when possible
  - Driving specific PT/OT programs
  - Vehicle alterations
Counseling

- Focus on alternative forms of transportation and/or limiting the need for transportation
  - Public transportation
  - Access/OPT
  - Taxis
  - Private drivers
  - Family and friends
  - Walking
  - Alternative living site
  - Home delivery services
Transportation Cost Worksheet

Owning and operating a vehicle can be more expensive than you think! By writing down your actual expenses, you can get an idea of how much money could be available for alternative transportation if you were to stop driving.

To determine the annual expense to own and operate a car, list all the related expenses below. Don’t forget to multiply by 12 for monthly expenses, or by 52 for weekly expenses. For less frequent expenses, such as tires, estimate the cost and divide by the number of years between expenses. Once you have the annual expense for owning and operating the vehicle, you can get a better idea of how much you are already spending on transportation.

<table>
<thead>
<tr>
<th>Vehicle Cost Per Year</th>
<th>Annual Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Car/Lease Payment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Regular Operating Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>- Gas</td>
<td></td>
</tr>
<tr>
<td>- Washer Fluid</td>
<td></td>
</tr>
<tr>
<td>- Parking</td>
<td></td>
</tr>
<tr>
<td>- Tolls</td>
<td></td>
</tr>
<tr>
<td>- Other</td>
<td></td>
</tr>
<tr>
<td><strong>Regular Maintenance</strong></td>
<td></td>
</tr>
<tr>
<td>- Oil Changes</td>
<td></td>
</tr>
<tr>
<td>- Minor Tune-ups</td>
<td></td>
</tr>
<tr>
<td>- Wiper Blades</td>
<td></td>
</tr>
<tr>
<td>- Lights</td>
<td></td>
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<tr>
<td>- Car Wash/Wax</td>
<td></td>
</tr>
<tr>
<td>- Other</td>
<td></td>
</tr>
<tr>
<td><strong>Long-Term Maintenance</strong></td>
<td></td>
</tr>
<tr>
<td><em>(estimate the cost and divide by the number of years between expenses)</em></td>
<td></td>
</tr>
<tr>
<td>- Tires</td>
<td></td>
</tr>
<tr>
<td>- Brakes</td>
<td></td>
</tr>
<tr>
<td>- Major Tune-ups</td>
<td></td>
</tr>
<tr>
<td>- Repair/Replace Parts</td>
<td></td>
</tr>
<tr>
<td>- Other</td>
<td></td>
</tr>
<tr>
<td><strong>Insurance - Annual Cost</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Motor Club/Roadside Assistance</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Registration/License Plate Fees</strong></td>
<td></td>
</tr>
<tr>
<td><strong>License Fees</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Vehicle Inspection/Emissions Fees</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Cost Per Year</strong></td>
<td>$</td>
</tr>
</tbody>
</table>
Counseling

- In pts with dementia, support caregivers
  - Give them resources and educational materials
  - Disabling or taking away the car sometimes a necessary step.

- If driving cessation is necessary
  - Address emotions; follow up to look for depression and isolation
  - Consider referring to a specialist to preserve the doctor/pt relationship.
Resources

- [www.thehartford.com/alzheimers](http://www.thehartford.com/alzheimers)
  - Excellent web site for dementia and driving issues for families
    - Tips for family conversations about dementia and driving, for monitoring driving, and for easing the transition from driver to passenger. Includes pt driving contracts and driving warning sign sheets.
    - Can get a free copy of “At the Crossroads. A guide to Alzheimer’s Disease Dementia and Driving.” and “We need to talk... Family conversations with older drivers.” Includes very helpful “getting there” and “transportation cost” worksheets for pts.
Resources

- Seniordriving.aaa.com.
- **Links to:**
  - Roadwise Review - computer-based screening tool that allows seniors to check their driving abilities.
  - Roadwise Rx – provides confidential, individualized feedback about users' medication interactions, highlighting how these effects may impact driving.
  - Driver refresher course availability.
Resources

- [www.aarp.org/families/driver_safety/](www.aarp.org/families/driver_safety/)
  - Locations of closest aarp driver safety courses and an online course.
  - Driver quiz
  - Advice on when to stop driving for pts/families
Resources

- [www.dmv.state.pa.us/](http://www.dmv.state.pa.us/)
  - Click on “older driver”, then “Medical Reporting” to get downloadable reporting forms
  - This site also details specifics of the law about each reportable disease state.
Thank you
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