SENIOR DRIVERS: THE CLINICIAN’S ROLE IN MAINTAINING INDEPENDENCE AND ASSESSING CAPABILITIES FOR DRIVING SAFELY

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Eastern Maine Medical Center Hospice and Palliative Medicine Fellowship Program
DISCLOSURE

- I do not have an interest in selling a technology, program, product, and/or service to CME/CE professionals.

- I have nothing to disclose with regard to commercial relationships.

- The content of this presentation does not relate to any product of a commercial interest. Therefore, there are no relevant financial relationships to disclose.
AGENDA

- Audience case examples
- The demographic problem
- Medical problems affecting driving capabilities
- Using self and family assessments
- Clinical evaluation and counseling techniques and resources
- Bureau of Motor Vehicle assessments and forms
- Legal/ethical implications of reporting
LEARNING OBJECTIVES

- Learn the demography of increasing senior driver crashes.

- Identify red flag historical reports.

- Effectively access and use patient/family educational materials as well as clinical evaluation tools.

- Understand the legal and ethical guidelines applicable to at-risk drivers.
OLD PEOPLE DRIVING

http://www.oldpeopledrivingmovie.com/trailer/
Maine Senior Drivers Coalition

- Formed in 2009 to address the needs of Maine’s increasing proportion of Senior Drivers

- Membership from a diverse mix of stakeholder organizations and individuals with a stake in driver safety and public health

- Development of this training was supported by a grant from the Maine Health Access Foundation.

- Dr. Dan Onion
MAINE’S OLDER POPULATION

- 4th oldest state with 16.3% of its population over age 65 (US is 13%)*;

- Highest median age in the nation (43.2)*, followed by NH, VT, WV, and FL;

- Most rapidly aging state in New England; second only to Florida in the US*;

- Rural Maine has a higher proportion of older adults than urban areas.

*US Census- est. 2012
The Aging of American Drivers

- By the year 2030, **22% of US licensed drivers will be age 65 or older (26.3% in Maine)**

- In Maine, **12.3% of licensed drivers are aged 70+ (2012 data)**

- Seniors over age 80 have the highest fatality rate per mile traveled, not highest rate per licensed driver.
In 2008, more than 5,500 older adults were killed in motor vehicle crashes, and more than 183,000 were injured.

This amounts to **15 older adults killed and 500 injured** in crashes **every day**.
In many ways, are safer:
- More seat belt use (although also less protective)
- Less night driving
- Less speeding and tailgating
- Less alcohol consumption

May forgo dangerous maneuvers, such as left-hand turns

Are more likely to avoid highways (but local roads may be more hazardous)

Reduce their mileage (but low mileage drivers, <3,000 miles per year may be the group most at risk)
Changes occurring with normal aging that can affect driving

- **Visual:**
  - Decreased visual acuity/visual fields
  - Decreased ability to handle light/dark and color differentiation
  - Increased sensitivity to glare

- **Hearing**
  - Decreased hearing acuity and echolocation

- **Neurologic:**
  - Slowed reaction time
  - Decreased fine motor control
  - Decreased ability to multi-task

- **Musculoskeletal:**
  - Stiffer, less flexible joints
Number of licensed drivers

<table>
<thead>
<tr>
<th>Age</th>
<th>Millions of Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>55</td>
<td>20</td>
</tr>
<tr>
<td>65</td>
<td>25</td>
</tr>
<tr>
<td>75</td>
<td>20</td>
</tr>
<tr>
<td>85+</td>
<td>10</td>
</tr>
</tbody>
</table>

NHTSA, FHWA
Crash Involvement Rate

Age per 1000 licensed drivers

NHTSA, FHWA
Total Miles of Travel

Age

millions of miles

0
50
100
150
200
250
300
350

16 25 35 45 55 65 75 85+

NHTSA, FHWA
Involvement Rate by Mileage

Age

per 100 million miles VMT

16 25 35 45 55 65 75 85+

NHTSA, FHWA
Maine Crashes (02-04) by Estimated 100K Miles Driven

Maine Crash Rate (2002-2004) per Driver Age Group
By Estimated Hundred Million Vehicle Miles Traveled

![Graph showing crash rate by driver age](image-url)
Fatal Accidents of Older Drivers

- Age Group
  - 26-40
  - 65+

- Event Types
  - Rear-end
  - Head-on
  - Crossing

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rear-end</th>
<th>Head-on</th>
<th>Crossing</th>
</tr>
</thead>
<tbody>
<tr>
<td>26-40</td>
<td></td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>65+</td>
<td>10</td>
<td>40</td>
<td>50</td>
</tr>
</tbody>
</table>
Violations in Fatal Accidents by Age

- Speeding
- Not Paying Attn
- Failure to Yield
- No proper lane
# MISTAKES* DRIVERS MAKE (MAINE) BY AGE GROUPINGS

<table>
<thead>
<tr>
<th>Measure/Category</th>
<th>16-20</th>
<th>21-24</th>
<th>25-64</th>
<th>65-74</th>
<th>75-84</th>
<th>85+</th>
</tr>
</thead>
<tbody>
<tr>
<td># Licensed Drivers</td>
<td>44K</td>
<td>71K</td>
<td>671K</td>
<td>79K</td>
<td>49K</td>
<td>18K</td>
</tr>
<tr>
<td>Est. Miles traveled/ year</td>
<td>8400</td>
<td>14,650</td>
<td>15,185</td>
<td>7,025</td>
<td>5,860</td>
<td>4,420</td>
</tr>
<tr>
<td>Driver in Any Crash</td>
<td>21.4</td>
<td>7.4</td>
<td>3.4</td>
<td>4.7</td>
<td>6.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Any unsafe behavior</td>
<td>9.00</td>
<td>2.7</td>
<td>0.9</td>
<td>1.4</td>
<td>2.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Failure to Yield</td>
<td>2.2</td>
<td>0.67</td>
<td>0.3</td>
<td>0.16</td>
<td>1.45</td>
<td>1.51</td>
</tr>
<tr>
<td>Disregard traffic device</td>
<td>0.45</td>
<td>0.14</td>
<td>0.05</td>
<td>0.15</td>
<td>0.28</td>
<td>0.20</td>
</tr>
</tbody>
</table>
Wrong Way Maine Interstate Crashes Over Age 70, 2003-2013

- For wrong way FATAL interstate crashes: 4 of 7 involved a wayward driver over 72 years old. In younger drivers, alcohol or mental illness are cited as common factors.

- For wrong way NON-FATAL interstate crashes, 5 of 25 wayward drivers were 78+. 
Overall, fatality rates are falling for all age groups; safer cars and roads

Figure 3
Motor Vehicle Traffic Fatality Rates in the Older Population by Age Group, 1998-2008

Traffic Deaths per 100,000 Population

- Ages 80-84
- Ages 85+
- Ages 75-79
- Ages 70-74
- Ages 65-69
"Officials Try to Balance Public Safety Against the Rights of Older Drivers"

*New York Times, May 4, 1992*
### Relation between Social Activities and Driving Habits in Women

<table>
<thead>
<tr>
<th>Social Activity</th>
<th>Drives self</th>
<th>Other Drive</th>
<th>Other mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>% seeing children</td>
<td>78.5</td>
<td>85.3</td>
<td>64.3</td>
</tr>
<tr>
<td>% more than 3 friends</td>
<td>61.1</td>
<td>54</td>
<td>52.7</td>
</tr>
<tr>
<td>% who leave house weekly</td>
<td>99</td>
<td>93.6</td>
<td>96.5</td>
</tr>
<tr>
<td>% club members</td>
<td>80.9</td>
<td>63.6</td>
<td>56.7</td>
</tr>
</tbody>
</table>

Huntley et al, 1986
WHY INCREASED RISK?

- Diminished metabolism of medications (most of the “anti”, alcohol)
- More visual impairments:
  - Acuity: by cataracts, macular degeneration
  - Visual fields: by glaucoma and strokes
- More cognitive impairment from meds/drugs/alcohol, and especially dementias
OTHER LESS FREQUENT CONTRIBUTORS

- Obstructive sleep apnea increases
- Degenerative Joint Disease of neck and limbs decrease range of motion and strength
- Cardiac disease increases including arrhythmias, MIs, syncope
- Diabetes increases with associated eye pathology and hypoglycemia
## Relative risk of motor vehicle collision injury by selected cardiovascular conditions

<table>
<thead>
<tr>
<th></th>
<th>% prevalence in Cases</th>
<th>% prevalence in Controls</th>
<th>Odds Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coronary heart disease</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>7.3</td>
<td>6.1</td>
<td>1.2 (0.6–2.3)</td>
</tr>
<tr>
<td>Angina pectoris</td>
<td>19.7</td>
<td>14.1</td>
<td>1.5 (0.9–2.2)</td>
</tr>
<tr>
<td>Coronary–artery bypass</td>
<td>2.6</td>
<td>1.6</td>
<td>1.6 (0.6–5.0)</td>
</tr>
<tr>
<td>Any of above conditions</td>
<td>21.4</td>
<td>15.5</td>
<td>1.4 (1.0–2.2)</td>
</tr>
</tbody>
</table>

Koepsell 1994
<table>
<thead>
<tr>
<th>Condition</th>
<th>% prevalence in Cases</th>
<th>% prevalence in Controls</th>
<th>Odds Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall in previous year</td>
<td>12.4</td>
<td>9.2</td>
<td>1.4 (0.9–2.4)</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>3.4</td>
<td>5.6</td>
<td>2.1 (0.8–6.0)</td>
</tr>
<tr>
<td>COPD</td>
<td>9.8</td>
<td>9.9</td>
<td>0.9 (0.5–1.6)</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>53.8</td>
<td>52.0</td>
<td>1.1 (0.8–1.5)</td>
</tr>
<tr>
<td>Rheumatoid arthritis</td>
<td>2.1</td>
<td>1.3</td>
<td>1.6 (0.5–5.3)</td>
</tr>
<tr>
<td>Cancer</td>
<td>18.4</td>
<td>17.9</td>
<td>1.0 (0.6–1.5)</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>11.1</td>
<td>4.5</td>
<td>2.6 (1.4–4.7)</td>
</tr>
</tbody>
</table>

Koepsell 1994
Relative risk of motor vehicle collision injury by selected neurological conditions

<table>
<thead>
<tr>
<th>Cerebrovascular disease</th>
<th>% prevalence in Cases</th>
<th>% prevalence in Controls</th>
<th>Odds Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>1.7</td>
<td>2.2</td>
<td>0.8 (0.2–2.5)</td>
</tr>
<tr>
<td>Transient Ischemia</td>
<td>3.0</td>
<td>1.8</td>
<td>1.6 (0.5–4.8)</td>
</tr>
<tr>
<td>Either of above</td>
<td>4.7</td>
<td>3.8</td>
<td>1.2 (0.5–2.6)</td>
</tr>
<tr>
<td>Head Injury</td>
<td>0.9</td>
<td>0.2</td>
<td>4.0 (0.4–44.0)</td>
</tr>
<tr>
<td>Dementia</td>
<td>1.3</td>
<td>0.4</td>
<td>2.8 (0.4–17.0)</td>
</tr>
</tbody>
</table>

Koepsell 1994
Dementia

- Approximately 4% of current drivers >75 have dementia

- 88% of drivers with very mild dementia, and 69% of drivers with mild dementia were still able to pass a road test (pooled study of 134 drivers with dementia)

GRADUATED STEPS TOWARD “RETIRING THE KEYS”

- Natural accommodations are made by most drivers voluntarily as their skills decline:
  - Fewer trips and fewer miles driven
  - Choosing to drive only in daylight
  - Avoiding peak driving times
  - Avoiding difficult intersections or problematic maneuvers such as left hand turns

- Restricted License may be a step when accommodations are not made, or not enough.
The New Hampshire regulations that required drivers to take road tests to renew their licenses after they reach 75 was repealed recently!

Currently only Illinois has an age-based retest mandate. Such policies have been successfully blocked by legitimate concerns about ageism.

Other states are re-considering options
THE CLINICIAN’S ROLE

- Asking the questions
- Encouraging self/family assessment
- Clinically assessing functional capabilities
- Counseling driver and family
- Referral to rehab/OT or BMV road test evaluation
- Intervention if indicated or required
- Reporting to BMV as indicated-BUT clinicians do not “take away the license!”
- Assisting the patient and family in navigating the system (as needed)
SIGN OF DIMINISHED CAPABILITY
(historical information)

- Accidents or near misses
- Unexplained scratches and dents
- Increased anxiety, agitation when driving
- Voluntarily diminished or restricted driving
- Confusion, forgetfulness, or getting lost
- Concern by others; refusal to be passengers
- Inappropriate speeds (too slow or fast)
- Hitting brakes/gas in error
- Incorrect signaling or maneuvers
- Incorrect response to stop sign/lights
- “Co-piloting” by passenger
QUESTIONS FOR PATIENT AND/OR FAMILY

- “How did you get here today?”
- “How much do you drive?” (How often, how far)
- “How often are passengers in the car?”
- “Do you have any problems when you drive?”
- “Do you think you are a safe driver?”
- “Do you ever get lost while driving?”
- “Have you gotten any tickets in the past 2 years?”
- “Have you had any near-misses or crashes in the past two years?”
- “If your car ever broke down, how would you get around?”
AAA Roadwise Review: A Tool to Help Seniors Drive Safely Longer

- State-of-the-Art Screening Tool developed by AAA
- CD-ROM/Online
- Screens 8 functional capabilities associated with increased crash risk among seniors

http://www.aaafoundation.org/resources/index.cfm?button=RoadwiseOnline
Screening Measures - Validity & Reliability

1. Visual Acuity – high contrast
2. Visual Acuity – low contrast
3. Useful Field of View*
4. Working Memory
5. Visual Search
6. Visualization of Missing Information
7. Lower Limb Strength and Mobility
8. Head-Neck Flexibility

Based on research on 2000 drivers 55-96 years, seniors with a decline in any of the 8 areas were 2-5 times more at-risk of being in an at-fault crash.

*Based on Driving Health Inventory™
To summarize:

- Stand next to the computer. Prepare to walk to the marker, turn, and come back.
- Begin when your partner says 'Start.' He or she will use the “Start Timer” button to record when you begin walking.
- Your partner will use the “Stop Timer” button to record when you arrive back at the computer.

When you are ready, stand and wait for your partner to say 'Start'. After you finish, click on 'Continue.'
Head-Neck Flexibility

Instructions
On this practice page, select one of the four figures below that could be completed to match the figure above. *Remember*, you can only add lines; you cannot move or take away lines.
On which spoke did the outside object appear?
Visual Search
<table>
<thead>
<tr>
<th>Ability Screened</th>
<th>Measure completed?</th>
<th>Raw Score</th>
<th>Level of impairment</th>
<th>Get extra information?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leg strength &amp; general mobility</td>
<td>YES</td>
<td>3 seconds</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>Head/neck flexibility</td>
<td>YES</td>
<td>PASS</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>High contrast visual acuity</td>
<td>YES</td>
<td>20/40 or better</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>Low contrast visual acuity</td>
<td>YES</td>
<td>20/40 or better</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>Visualizing missing information</td>
<td>YES</td>
<td>1 incorrect</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>Visual information processing speed</td>
<td>YES</td>
<td>0.0 milliseconds</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>Visual search</td>
<td>YES</td>
<td>28 seconds</td>
<td>none</td>
<td>YES</td>
</tr>
<tr>
<td>Working memory</td>
<td>YES</td>
<td>0 incorrect</td>
<td>none</td>
<td>YES</td>
</tr>
</tbody>
</table>
Leg Strength & General Mobility

Am I At Risk?

Based on your score for this measure, you do not appear to have any impairment in your leg strength & general mobility. The graph shows how your score compares to the scores of thousands of drivers, age 55 and older, who completed this same test in a controlled, scientific study.

One reason leg strength is important for safe driving is so you can always maintain steady control over the pedals, without fatigue. Without enough strength and flexibility in your leg and ankle, you could have difficulty in quickly and accurately shifting back and forth from the gas to the brake pedal. You must be able to put your brakes on quickly in an emergency, and also must be able to smoothly control your speed in routine situations. If you drive erratically, by speeding up and slowing down for no apparent reason, other drivers may react by trying to avoid you or pass you when they shouldn’t. This creates an unsafe situation for everyone.

Though you do not appear to have a measurable loss in your leg strength & general mobility, this doesn’t guarantee that you will not be involved in a crash. Your Roadwise Review score does give a reasonable assurance that you are at low risk of impaired driving due to difficulties in this particular area.

Please click on each of the three tabs below to (1) get feedback on your screening performance; (2) learn steps you can take to continue driving safely; and (3) see examples of why this ability is important.
Your apparent loss of head-neck flexibility, as indicated by this measure, makes it very important that you receive an immediate, in-depth assessment to diagnose the reason for your poor screening outcome.

You should schedule a visit with your physician, an occupational therapist, or certified driving rehabilitation specialist without delay. Ask specifically about how such a loss could affect your driving, and what you should do to stay safe. And, ask a friend or relative for a ride to your appointment, or use some form of alternative transportation.

Though your screening result has indicated an important functional loss, it is does not necessarily mean that you should be thinking about giving up driving. You may benefit substantially from some type of therapy or rehabilitation that can slow or even reverse your loss, or there may be adaptive equipment that can make the driving task safer and easier for you. You may wish to avoid situations that are likely to require frequent lane changes, where you must quickly scan to the sides to check blind spots. Merging into a lane of traffic will also be more difficult; if you use the freeway or expressway, try to find an on-ramp that is long and parallel to the highway lane you wish to enter—this will let you use your mirrors more effectively to smoothly merge with traffic. When you visit your health care professional, also ask him or her how your loss of head-neck flexibility could affect your driving, and what you should do to stay safe.

Select ‘Continue’ to learn about whether you appear to be at higher risk of impaired driving, based upon your score on this measure. Or, you may choose the other button at right to return to the results page.
More Office Screening with AMA/NHTSA Assessment of Driving-Related Skills


- Seven component testing protocol

- Much of the testing can be done by office staff

- Time required generally 10 minutes or less
SEVEN COMPONENTS ASSESSED

1. Visual Fields
2. Visual Acuity
3. Rapid Pace Walk
4. Range of Motion
5. Motor strength
6. Trail-making test Part B
7. Clock-drawing test
ADReS Score Sheet

Patient's Name: ___________________________ Date: ___________________________

1. **Visual fields**: Shade in any areas of deficit.
   - Patient's R L

2. **Visual acuity**: __________ OU
   - Was the patient wearing corrective lenses? If yes, please specify:

3. **Rapid pace walk**: _______ seconds
   - Was this performed with a walker or cane? If yes, please specify:

4. **Range of motion**: Specify 'Within Normal Limits' or 'Not WNL.' If not WNL, describe.

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck rotation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finger curl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoulder and elbow flexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ankle plantar flexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ankle dorsiflexion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

5. **Motor strength**: Provide a score on a scale of 0-5.

<table>
<thead>
<tr>
<th></th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder adduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoulder abduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoulder flexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrist flexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrist extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand grip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hip flexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hip extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ankle dorsiflexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ankle plantar flexion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. **Trail-Making Test, Part B:** ___________ seconds

7. **Clock drawing test:** Please check 'yes' or 'no' to the following criteria.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 12 hours are placed in correct numeric order, starting with 12 at the top</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Only the numbers 1-12 are included (no duplicates, omissions, or foreign marks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The numbers are drawn inside the clock circle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The numbers are spaced equally or nearly equally from each other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The numbers are spaced equally or nearly equally from the edge of the circle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One clock hand correctly points to two o'clock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The other hand correctly points to eleven o'clock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are only two clock hands</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How to Help the Older Driver

As experienced drivers grow older, changes in their vision, attention and physical abilities may cause them to drive less safely than they used to. Sometimes these changes happen so slowly that the drivers are not even aware that their driving safety is at risk.

If you have questions about a loved one's driving safety, here's what you can do to help him or her stay safe AND mobile.

Is your loved one a safe driver?

If you have the chance, go for a ride with your loved one. Look for the following warning signs in his or her driving:

- Forgets to buckle up
- Does not obey stop signs or traffic lights
- Fails to yield the right of way
- Drives too slowly or too quickly
- Often gets lost, even on familiar routes
- Stops at a green light or at the wrong time
- Doesn't seem to notice other cars, walkers, or bike riders on the road
- Doesn't stay in his or her lane
- Is honked at or passed often
- Reacts slowly to driving situations
- Makes poor driving decisions

Other signs of unsafe driving include:

- Recent near misses or fender benders
- Recent tickets for moving violations
- Comments from passengers about close calls, near misses, or the driver not seeing other vehicles
- Recent increase in the car insurance premium

Riding with or following this person every once in a while is one way to keep track of his or her driving. Another way is to talk to this person's spouse or friends.

If you are concerned about your loved one's driving, what can you do?

Talk to your loved one. Say that you are concerned about his or her driving safety. Does he or she share your concern?

- Don't bring up your concerns in the car. It's dangerous to distract the driver! Wait until you have his or her full attention.
- Explain why you are concerned. Give specific reasons—for example, recent fender benders, getting lost, or running stop signs.
- Realize that your loved one may become upset or defensive. After all, driving is important for independence and self-esteem.
- If your loved one doesn't want to talk about driving at this time, bring it up again later. Your continued concern and support may help him or her feel more comfortable with this topic.
- Be a good listener. Take your loved one's concerns seriously.
Counseling Drivers: Partial Restrictions

- Geographic
- Time of day
- Type of vehicle
- Equipment accommodations
- Weather
Counseling Drivers: options and alternatives

- Assessment by AAA ($100) including road test ([https://seniordriving.aaa.com/evaluate-your-driving-ability/professional-assessment](https://seniordriving.aaa.com/evaluate-your-driving-ability/professional-assessment))
- Retraining: with AAA or AARP classes
- By reaction time training, maybe? (JAmGerSoc 2010:58:2107-2113)-DriveSharp
- Public/private transportation options:
  - Family, friends
  - Independent Transportation Network
  - volunteer groups (churches, community centers, CAPs, et al)
- Diminish need through assisted living arrangements, housing zoning, etc.
- NOT co-piloting
Counseling Impaired Drivers

- The challenge of moving to restrict driving include:
  - Alienation of patient
  - Threat of loss of the relationship & trust
  - Balance between autonomy and safety
- Use “retiring from driving”, not “taking away license”. Discuss BMV reporting if appropriate; they make the decision, not you.
- Retirement vs AAA self assessment vs road test (By family, AAA, OT, or BMV)
- Consider “unintended consequences” of accidents (pedestrian, bicycles) and isolation/depression/suicide)
Working with Families: Support and resources

- Handouts from AMA/NHTSA book
- “Observing the Senior Driver”
  [www.nationalroadsafety.org/pdf/ObservingSeniors2.pdf](http://www.nationalroadsafety.org/pdf/ObservingSeniors2.pdf)
- American Automobile Association’s Roadwise Review
  [http://seniordriving.aaa.com/evaluate-your-driving-ability/self-rating-tool](http://seniordriving.aaa.com/evaluate-your-driving-ability/self-rating-tool) and DriveSharp training:
  [https://www.drivesharp.com/aaaf/index](https://www.drivesharp.com/aaaf/index)
- Hartford Foundation’s “We Need to Talk”
- Alzheimer’s Association, Dementia and Driving Resource Center
Resources for Clinicians


- Driver Fitness; Medical Guidelines, 2009 NHTSA & AAMVA (www.nhtsa.gov/DOT/NHTSA/.../Articles/.../811210.pdf)

- Maine BMV, Functional Ability Profiles II; Available from BMV http://www.maine.gov/sos/bmv/licenses/medrules.html
What if the patient disagrees?

- Public safety concerns
- Doctor’s orders to retire from driving
- Emphasize medical issues over cognitive problems when discussing retiring from driving
- Have someone “borrow” or “repair” the car
- Hide keys, give set of keys that don’t work on the care, or disable the vehicle
- Have patient sign a contract
MAINE’S LEGAL CLIMATE

- Clinician’s legal responsibilities
  - Legal Protection

- Ethical Responsibilities
  - Duty to protect patient and public
  - Preserve patient confidentiality

- Reporting obligations
MAINE’S LEGAL CLIMATE

Ethics guidance:

- Inherent tension: *duty to patient vs duty to public*
- **AMA Code of Medical Ethics Opinion 2.24, Impaired Drivers and Their Physicians:**
  - “In situations where clear evidence of substantial driving impairment implies a strong threat to patient and public safety, and where the physician’s advice to discontinue driving privileges is ignored, it is desirable and ethical to notify the DMV.
  - **Physician’s role:** “report medical conditions that would impair safe driving”
  - **DMV role:** “determination of inability to drive safely”
Patient consent or authorization unnecessary under either state or federal privacy laws because of reporting authority provided by 29-Å M.R.S.A. 1258

Federal law: HIPPA Privacy Rule, 45 C.F.R. Parts 160 and 164
Uses and disclosures for which consent, authorization, and opportunity to agree or object is not required:
- Those required by law
- To avert a serious threat to health or safety (Tarasoff standard)

State law: 22 M.R.S.A. 1711-C, Confidentiality of health care information
Statutory exceptions to the requirement for written authorization from the patient:
- To prevent imminent harm (Tarasoff standard)
- To protect the public health and welfare
- As authorized or required by statute
Maine BMV Rules

- **License Renewal every 4 years after age 65**
  - Vision tested: acuity and visual field screens
  - More extensive review if indicated.

- **BMV may require medical evaluation for cause:**
  - Disclosure of a listed medical condition
  - Report of concern from physician, family, police or other
  - Observed concern as seen or assessed by BMV staff.
    - BMV will send CR-24 form to the licensee for physician to complete.
  - Response to concern varies with degree of impairment.
Reporting Concerns to BMV

- Medical information on BMV website: [http://www.maine.gov/sos/bmv/licenses/medical.html](http://www.maine.gov/sos/bmv/licenses/medical.html)


May be initiated by clinician or in response to BMV request
BMV driver evaluation form

State of Maine
Department of the Secretary of State
Bureau of Motor Vehicles
DRIVER MEDICAL EVALUATION

NAME: ____________________________ DATE OF BIRTH: ____________________________
ADDRESS: ____________________________ LICENSE/HISTORY NUMBER: ____________________________
PRINT DATE: ____________________________ TELEPHONE #: ____________________________
(OR PLEASE ENTER PHONE NUMBER)

CERTIFICATE OF EXAMINATION

FOR THE REPORTING PHYSICIAN:
1. This report is requested because the issue has been raised as to the possibility that the applicant may have a mental/physical condition which could affect his/her ability to drive a motor vehicle safely. Your report will be advisory and used to assist in determining eligibility for a driver's license. If you have any questions, please call the Medical Review Coordinator's office.

2. A physician acting in good faith is immune from any damages claimed as a result of the filing of a certificate of examination pursuant to 29-A MRSA Section 1258 (6).

FUNCTIONAL ABILITY PROFILE

Please complete the profile level for the listed conditions and provide information for any other conditions not listed below that may affect the driver's ability to drive a motor vehicle safely.

PROFILE LEVEL

THIS SECTION MUST BE COMPLETED
CHECK ONLY ONE BOX PER DIAGNOSIS

<table>
<thead>
<tr>
<th>DIAGNOSIS</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COPD Profile Level B or C</td>
<td>□</td>
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</tr>
</tbody>
</table>

Date of last examination: ____________________________ How long has applicant been your patient? (must be within past year) ____________________________

For accidents/stroke or loss of consciousness give date of most recent episode: ____________________________

Currently prescribed medication(s): ____________________________

☐ No medication prescribed Reliability in taking medication: Good □ Fair □ Poor □ Unknown □

Has this patient demonstrated any side effects from current medication(s) which would interfere with safe operation of a motor vehicle? ____________________________

PHYSICIAN'S COMMENTS

(Important - please describe physical and/or cognitive deficits.)

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

AUTHORIZATION FOR RELEASE OF MEDICAL INFORMATION

I hereby authorize the release of my medical history to the Secretary of State, Bureau of Motor Vehicles and understand the information may be shared with any qualified medical professional submitting information pertaining to the disclosed medical history for the purpose of determining my eligibility for a driver's license by:

Dr. ____________________________ Hospital ____________________________

Signature of Patient: ____________________________ Date: ____________________________

(Please forward this form directly to your physician for completion)

Patient Telephone number: ____________________________

Being duly licensed to practice in the state of ____________________________ I hereby certify that I have examined this applicant.

(Signature) ____________________________ (Specialty) ____________________________

(Physician's Name Printed or Typed) ____________________________ (Address) ____________________________

(Office Phone Number) ____________________________ (Date) ____________________________

Reply to: Medical Review Coordinator
Bureau of Motor Vehicles
29 State House Station
Augusta, Maine 04333-0029
Telephone (207) 624-9000, ext 52124
Fax (207) 626-5119
Maine’s Medical Advisory Board has developed and is revising FAPs for ten categories, with multiple levels under each profile.

Each profile follows the same format:

1. No diagnosed condition
2. Condition fully recovered/compensated
3. Active impairment
   1. minimal,
   2. mild,
   3. moderate,
   4. severe
4. Condition under investigation
“Before I came here I was confused about this subject, but now having heard your lecture I am still confused, but at a higher level.”

Enrico Fermi, Nobel Prize Laureate, 1938
OLD PEOPLE DRIVING


- The Older Adult With Cognitive Impairment “It’s a Very Frustrating Life”. JAMA, April 28, 2010 – Vol 303, No.16, 1632-1641.
Take Home Points

- Normal and pathologic changes of aging affect driving
- Older people are a high risk of accidents, as well as injury and death from accidents
- Risk factors for poor driving performances should be identified
- Formal assessments are available
- It is your duty to report finding to the patient, the family, and DMV if necessary
THANK YOU!