Driving and Dementia
Practical Tips for the Family Physician

L. Lee, MCiSc (FM), MD, CCFP(COE), FCFP
2017

<table>
<thead>
<tr>
<th>Cognition</th>
<th>Dementia, delirium, depression, executive function, memory, judgment, psychomotor speed, attention, reaction time, and visuospatial function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute or Fluctuating Illness</td>
<td>Delirium, seizures, Parkinson disease, and syncope or presyncope (cardiac ischemia, arrhythmia, postural hypotension)</td>
</tr>
<tr>
<td>Neuromusculoskeletal Disease or Neurological Effects</td>
<td>Speed of movement, speed of mentation, level of consciousness, stroke, Parkinson disease, syncope, hypoglycemia, hyperglycemia, arthritis, cervical arthritis, and spinal stenosis</td>
</tr>
<tr>
<td>Drugs</td>
<td>Drugs that affect cognition or speed of mentation, such as benzodiazepines, narcotics, anticholinergic medications (e.g., tricyclic antidepressants, antipsychotics, oxazepam, dimenhydrinate), and antihistamines</td>
</tr>
<tr>
<td>Record</td>
<td>Patient or family report of accidents or moving violations</td>
</tr>
<tr>
<td>In-car experiences</td>
<td>Patient or family descriptions of near accidents, unexplained damage to car, change in driving skills, loss of confidence or self-restriction, becoming lost while driving, others refusing to be driven by patient, need for assistance of a copilot (particularly concerning would be the need for cues to avoid dangerous situations that could result in a crash), and other drivers having to drive defensively to accommodate changes in the patient’s driving skills</td>
</tr>
<tr>
<td>Vision acuity</td>
<td>Visual field defects, glare, contrast sensitivity, comfort driving at night</td>
</tr>
<tr>
<td>Ethanol use</td>
<td>Physician’s opinion regarding whether ethanol use is excessive and whether alcohol is inhaled before driving</td>
</tr>
</tbody>
</table>

Canadian Medical Association. Determining fitness to operate motor vehicles;
Canadian Medical Association Driver’s Guide

“In general, physicians should err on the side of reporting any potentially medically unfit driver. This is especially important in jurisdictions where there is mandatory reporting obligation.”

- Discretionary reporting in
  - Alberta
  - Nova Scotia
  - Quebec

- MD protection for reporting in all provinces; in most, not admissible as evidence in legal proceedings

---

CMA Driver’s Guide

- In patients with mild dementia, driving fitness should be reassessed every 6 to 12 months, or more frequently if the cognitive impairment progresses

- It is recommended that physicians administer more than one cognitive screening tool

- If cognitive tests such as MMSE, MOCA, Clock, Trails, or other in-office tests are markedly abnormal (where the results are specific and believable)...
  - Is the test result consistent with other evidence?
  - Use common sense – consider the severity of findings

- Cognitive screening alone cannot determine driving fitness
Canadian Medical Association position…

Moderate to severe dementia is a contraindication to driving. Moderate dementia is defined as the inability to independently perform two or more instrumental activities of daily living (including medication management, banking, shopping, telephone use, cooking) or any basic activity of daily living (eating, dressing, bathing, toileting, transferring).

No test, including the Mini-mental State Examination (MMSE) has sufficient sensitivity or specificity to be used as a single determinant of driving ability. However, abnormalities on tests including the MMSE, clock drawing and Trails B should trigger further in-depth testing of driving ability.

- New impairment due to cognition
- Grade B, Level 3 evidence (based on expert opinion)

Activities of Daily Living

**INSTRUMENTAL ADL’s**
- Manage medications
- Handle money, bills, shop
- Use telephone
- Prepare food

**BASIC ADL’s**
- Bathe/shower
- Walk
- Toilet
- Transfer (bed/chair)
- Feed self

---

Questions to Ask the Family

1. Do you or would you feel uncomfortable being a passenger when the person is driving?

2. In the last year has the person had any accidents or near misses or tickets for traffic violations (driving too slowly, failure to stop)?

3. Have you noticed the person self-restricting their driving habits (driving less or only familiar routes, or avoiding driving at night, in bad weather, or busy streets)?

4. Have there been occasions where the person has gotten lost or shown navigational confusion?

5. Have you or others seen unsafe or abnormal driving behavior or are cues/directions needed from a “copilot”?

Ontario’s Strategy for Alzheimer Disease and Related Dementia: Initiative #2

CMA Driver’s Guide

To help you “get off the fence,” ask yourself four questions:

1. Given the results of your clinical assessment, would you get in the car with the patient driving?

2. Given the results of your clinical assessment, would you let a loved one get in a car with the patient driving?

3. Given the results of your clinical assessment, would you want to be crossing a street in front of a car with the patient driving?

4. Given the results of your clinical assessment, would you want to have a loved one cross a street in front of a car with the patient driving?


• Computerized testing – “there is insufficient evidence to support making licensing decisions based solely on their results”

• “Novice driver’s road tests is inappropriate for experienced drivers. Any road test for experienced drivers must include driving in unfamiliar surroundings, to test how the driver reacts to situations that differ from his or her daily routine.”

• “Although use of the driver’s own vehicle may reduce the level of stress, difficulty driving in an unfamiliar vehicle may indicate cognitive inflexibility that could have a negative effect upon fitness to drive.”


• “Geographic limitations (i.e., restricting drivers to their local area) are not recommended for drivers with cognitive problems, especially those with dementia. In fact, recent guidelines on dementia recommend that any driver with dementia who requires imposition of licence restrictions to ensure driving safety should be suspended from driving completely.”

• “Once the physician has made a report to the licencing authority, he or she has discharged his or her legal responsibility.

• “Physicians should also contact the CMPA if a patient threatens legal action for making a report to the licensing authority.”

• “Medical conditions can make even the best drivers unsafe”
• Canadian Automobile Association Driving Costs, 2012: “it costs $13,654 to own and operate a mid-sized car, based on 32,000km driven per year.”
Compliance:

- “as many as 28% of people with dementia continue to drive, despite failing an on-road assessment.”

- “should the physician become aware that a driver whose privileges are known to have been suspended is continuing to drive, the physician has no legal obligation to report the situation to any authority. However, there are ethical considerations... the physician is advised to contact the CMPA for advice and to document the reasons for deciding whether or not to make a follow-up report.”

Considerations in Fitness to Drive

- History of driving accidents or near-accidents*
- Family member concerns*
- Trails A & B – for ‘task switching’, visuospatial and executive function
- Clock draw – for visuospatial and executive function
- Pentagons/cube – for visuospatial function
- Cognitive test scores – maybe
- CMA guidelines – inability to independently perform 2 instrumental ADLs or 1 basic ADL

*ask patient and family member separately

The Centre for Family Medicine FHT Memory Clinic

Trails B

“On the paper are the numbers 1 through 13 and the letters A through L, scattered across the page. Starting with 1, draw a line to A, then to 2, then to B, and so on, alternating back and forth between numbers and letters until you finish with the number 13. I’ll time how fast you can do this. Are you ready? Go.”

If education or language is a concern, ask the patient to write down numbers 1-13 and letters A-L.
Trails B

Tests “task switching”

- Completion time > 3 minutes or 3 or more errors suggests an unsafe driver
- Completion time of 2 – 3 minutes or 2 errors is unclear
- Completion time of < 2 minutes and 0 or 1 error is acceptable

Patients with Frontotemporal Dementia or Lewy Body Dementia or Parkinson’s Disease Dementia are generally **UNSAFE** to drive!

Fitness to Drive

The gold standard for assessing driving safety is a comprehensive on-road assessment.
List the concerning history and/or impaired activities of daily living and cognitive test scores (minimum legal requirement)

OR

“This is to notify the Ministry of Transportation that the patient is currently under investigation for cognitive concerns and an on-road driving assessment has been arranged to determine fitness to drive” (exceeds legal requirement)

Examples of ways to report to Ministry of Transportation

1. Be firm and non-negotiable in your instructions.
2. Discuss implications with patient and family.
3. Communicate your legal obligation and intention to notify the MOT, but that any decision to revoke the license rests with the MOT
4. Explore transportation options.
5. Focus on positives.
6. Provide a written statement.
7. Document and report to MOT.
Sample of written statement for the patient

Date
Name
Address

Dear Mr (Mrs):

It is my legal responsibility to notify the Ministry of Transportation if there is any concern regarding driving safety.

You have undergone assessment at

______________________________________________________________________________________________________________________________________________________________

I am recommending that you do not drive for the following reasons:

________________________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________________________

____________________, MD


• “Medical conditions can make even the best drivers unsafe”

• Canadian Automobile Association Driving Costs, 2012: “it costs $13,654 to own and operate a mid-sized car, based on 32,000km driven per year.”
Risk Management Considerations

- Inform the patient of your intention and/or obligation to report
- Remind the patient that any decision to revoke the license rests with the MOT
- Caution the patient not to drive until the MOT has made a determination
- Document your assessment, discussion, warning and advice to the patient regarding driving, and your intention to report
- Limit the information in the report to what is required by legislation
  - If the patient says you are not permitted to send this information to the MOT or they will sue you….
  - Address driving issues early!

Further reading


- Canadian Medical Protective Association: Reporting patients with medical conditions affecting their fitness to drive. Originally published December 2010, revised February 2011