Driving and Dementia

Anna Byszewski Med FRCPC
Professor, University of Ottawa
Division of Geriatrics, The Ottawa Hospital
abyszewski@ottawahospital.on.ca
Geriatric Refresher Day
March 21, 2018

Objectives:
This session will focus on:

- Safety issues around driving and cognitive loss
- The legal requirements facing medical practitioners
- Compensatory strategies for driving
- How to address driving cessation in persons unfit to drive

Not if but when…

Driving and Dementia - not if but when.

https://www.youtube.com/watch?v=Jod3tijf9-8

Common Myths About Senior Driving

- Senior driving safety is not a problem.
- For senior drivers, driving in rural areas is safer than in urban areas.
- The increased crash rates per miles driven are the result of changes associated with aging.
- Driving issues are not a physician's responsibility.
- Seniors know when to stop driving and should decide on the time for this to cease.
- The self-restrictive habits of senior drivers (e.g., not at night or during rush hour) are enough to keep them safe.
- My patient is safe to drive because (s)he drives only in familiar places.
- A driver refresher course or driver testing will overcome a patient's decline in driving ability.
- Having a co-pilot in the car is an acceptable method for maintaining the driving of a cognitively impaired senior.

Case

- **Mr. T, a retired high school math teacher has early Alzheimer disease just diagnosed. MMSE is 25/30, MOCA 21/30. He has had one fender bender in the last year. Daughter is worried. Wife thinks he is OK.**

- **What do you do?**

Get collateral history – Feedback network

- The driver's spouse or companion
- Family members
- Passengers and friends
- Neighbours
- Pharmacist
- Physician
- Driver's eye care provider
- Clergy
- Insurance agent
- Bank staff (manager, teller)
- Grocery store manager
- Community services

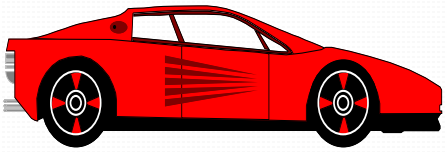
When should you worry?

Questions to consider (for patient or caregiver opinion):

- Any change in driving skill?
- Do others honk at you or show irritation?
- Have you lost confidence in driving ability?
- Have you ever become lost while driving? Do you need a co pilot?
- Have you ever forgotten where you are going?

When should you worry (cont'd):

- Have you had any accidents in the last year?
- Any minor fender benders
- Have you received any traffic citations for speeding, going slow, improper turns
- Have others criticized your driving or refused to drive with you?



What do you do?

- Evaluate the condition
- Review use of medications and alcohol

Mr. T. Medical Condition

- PMH
  - Hypertension
  - CHF (stable)
  - Early dementia
- Medications
  - HCTZ 12.5 mg daily
  - Ramipril 1.25 mg daily
  - Zopiclone 1.25 mg qhs

Mr. T.: Social/Function

Function: ADL/iADL

- Mr T. is apparently independent in ADL and most iADL except this year he had trouble doing his income tax
- He is an avid golfer, he and his wife travel extensively
- He enjoys a martini and occasionally wine on a daily basis

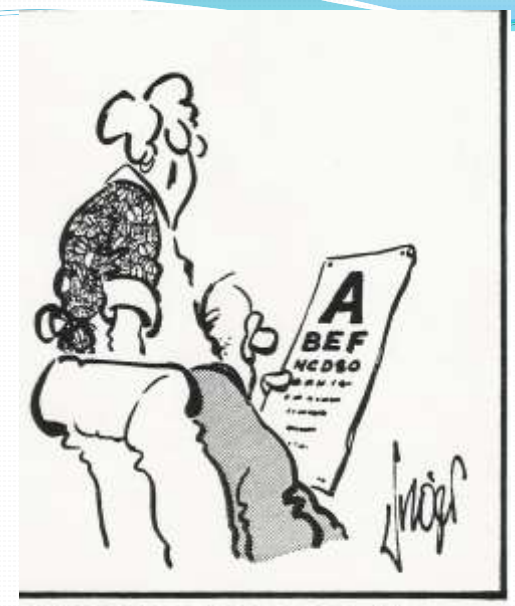
What next?

- He insists he is a safe driver, safer that all those “yahoos” on the road
- The fender bender apparently was the other driver’s fault
- He has a clean driver record and passed the Ontario MOT test just earlier this year
- He avoids highways and only drives to the mall close by to meet for coffee with his friends, wife drives too.

Some facts, what is the evidence?

Current MOT procedure at age 80 (every 2 years):

- Eye test
- Clock drawing and letter “H” cancellation test
- Group Information session



"Whoever heard of anyone studying for an eye examination!"

Motor Vehicle Crashes

- Age 65-74 leading cause of accidental death
- Age 75+ second (1st falls)

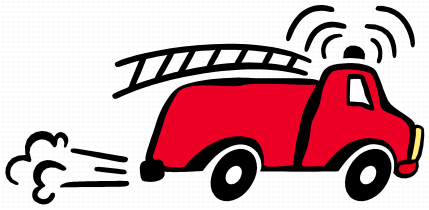
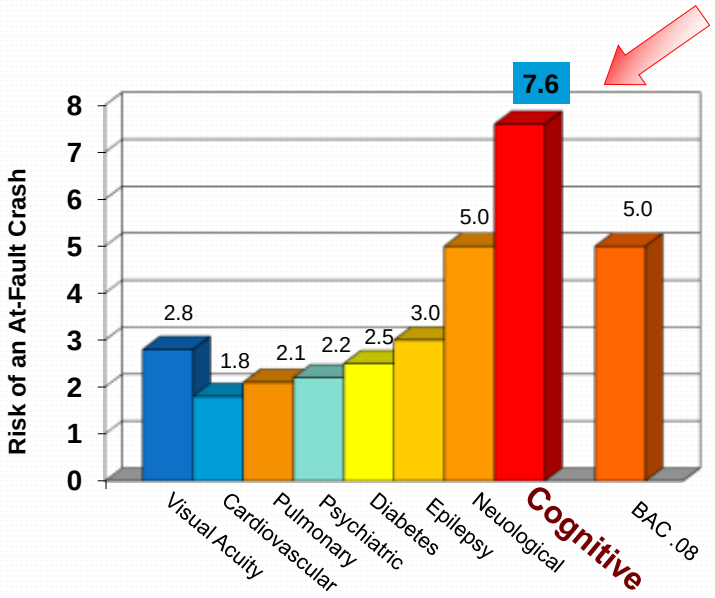


Figure 2. Rate of Motor vehicle crashes adjusted for miles driven according to driver's age. SOURCE: Cerrelli E. *Older Drivers: The Age Factor in Traffic Safety.* Washington, DC: US Department of Transportation, National Highway Traffic Safety Administration, 1989

Cognitive Loss & Driving:

- Attention (selective)
- Decision making
- Visual spatial skills
- Judgement
- Memory

Increased Risk of an At-Fault Crash



So how do you evaluate driving safety at bedside or in the office?

The law:

Section 177 of the Highway Traffic Act:

(Ontario)

"Every legally qualified medical practitioner shall report to the Registrar the name, address and clinical condition of every person 16 years of age or over ... who in the opinion of such medical practitioner is suffering from a condition that may make it dangerous for such person to operate a motor vehicle."

Mandatory Reporting:

- any condition which causes full/partial loss of consciousness
- alcohol or drug addiction
- seizures/convulsions
- corrected vision less than 20/50 both eyes
- impaired judgement, perception

Realistic Conclusions

- No screening or assessment protocol will ever predict 100% of risk of MVC
  - Only test stable intrinsic features
    - tactical, operational > strategic
    - Miss new or fluctuating illness
  - Cannot predict extrinsic factors
    - weather, other drivers, road, car …
  - Complexity cannot be fully addressed with time available in front-line clinical settings
- **Therefore objective is *<u>to improve</u>* not perfect assessment of fitness to drive**

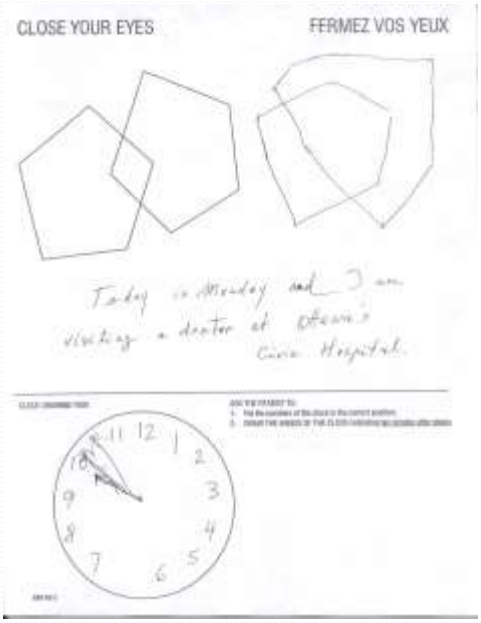
Canadian Consensus Guidelines on Dementia 2006 - Driving

- No single brief cog test that is sufficient as a sole determinant of driving ability (Grade B, level 3)
- Driving is contraindicated in persons with an inability to perform multiple instrumental ADLs or any basic ADL (Grade B, level 3)
- Driving ability should be tested on an individual basis – a comprehensive off and on road driving test is the fairest method (Grade B, level 3)
- If deemed safe, reassessment every 6-12 months (Grade B, level 3)

Ref: Introduction: The Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2006
Chertkow, Howard. Alzheimer's & Dementia: The Journal of the Alzheimer's Association , Volume 3 , Issue 4 , 262 - 265

The MMSE

- The MMSE can provide a rough framework for assessing driving safety. Unless you feel a low score is due to a language barrier, low education or sensory deficits, patients scoring under 20 are likely unsafe to drive.



Clock Drawing Test

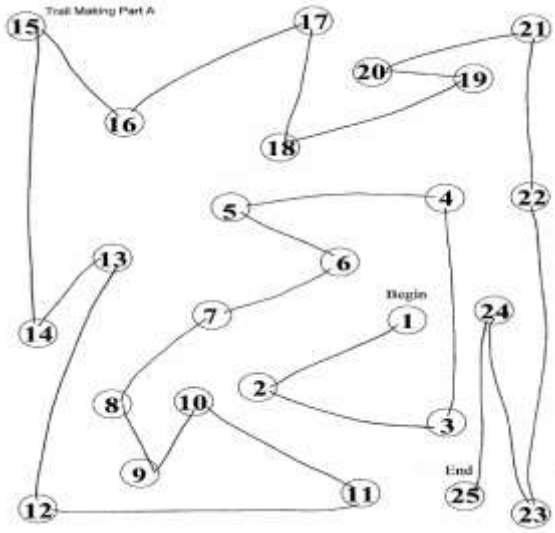
- A test of Executive Function and Visuospatial function

Trail Making A and B
(available at www.rgpeo.com)

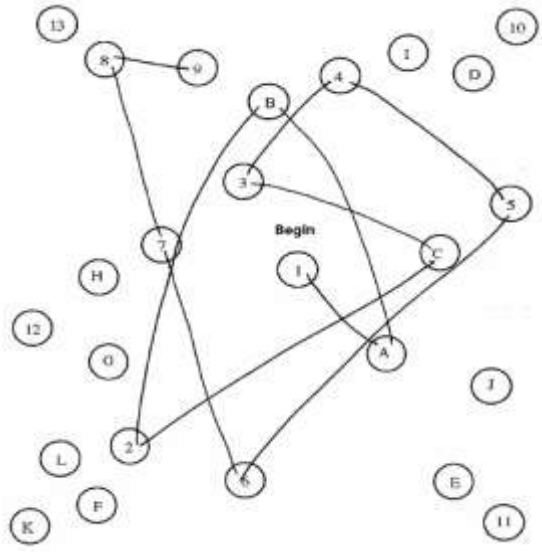
- Trail Making A:
  - *Unsafe* = >2 minutes or 2 or more errors
- Trail Making B:
  - *Safe* = <2 minutes and <2 errors (0 or 1 error)
  - *Unsure* = 2–3 minutes or 2 errors (consider **qualitative dynamic information** regarding ***how*** the test was performed—slowness, hesitation, anxiety or panic attacks, impulsive or perseverative behaviour, lack of focus, multiple corrections, forgetting instructions, inability to understand test, etc.)
  - *Unsafe* = >3 minutes or 3 or more errors
    - The longer the patient takes and the more errors they make, the more certain you can be that they are unsafe

(Ref: Roy M, Molnar F, Systematic review of the evidence for Trails B cut-off scores in assessing fitness-to-drive. Canadian Geriatrics Journal. 2013; 16(3): 120–142 Published online 2013 Sep 4. doi: 10.5770/cgj.16.76 (http://europepmc.org/articles/PMC3753211)

Trails A (Mr. T: 1 minute, 30 seconds, no errors)



Trails B (Mr. T: Unable to complete, many errors)

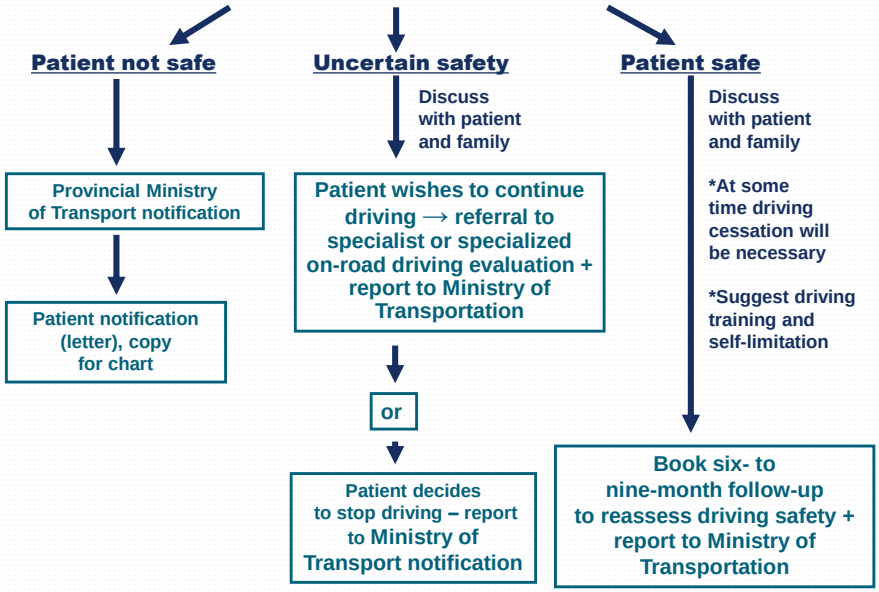


Specialized on the road evaluations

- Available at several sites in Ottawa (Rehab Centre, Capital Region Driver Rehabilitation, DriveABLE Assessment Centre, etc.)
- Need a current vision evaluation
- Considerable cost $650-850 to the patient plus long wait list
- Best evaluation as done with a dual brake automobile and a driver instructor and occupational therapist

Physician assessment of person with dementia

Dementia and Driving Toolkit(rgpeo.com)



What do you do after **After** the Assessment?

- Outcomes of Assessment
- Reporting duties
- Further testing
- Disclosure Techniques: telling the patient

Case 2 (a)
Possible Scenarios:

- **Mr. T is unsafe to drive:**
  - MD discusses with Mr. T cessation to drive
  - MD notifies the Ministry of Transportation regarding his recommendation
  - Discuss alternatives
  - Emphasize the MD legal responsibility


Medical Condition Report

Notification About Driving Safety

Name: _____

Date: _____

Address: _____

You have undergone assessment for memory/cognitive problems. It has been found by comprehensive assessment that you have _____ dementia. The severity is _____.

Even with **mild** dementia, compared to people your age, you have an 8 times risk of a car accident in the next year. Even with **mild** dementia, the risk of a serious car accident is 50% within 2 years of diagnosis.

Additional factors in your health assessment raising concerns about driving safety include:

_____

_____

_____

_____

As your doctor, I have a legal responsibility to report potentially unsafe drivers to the Ministry of Transport. Even with a previous safe driving record, your risk of a car accident is too great to continue driving. Your safety and the safety of others are too important.

_____ M.D. _____ Witness

Communication

What can we do?
Health Professional Role:

- Ensure the correct diagnosis and evaluation of driving skill is performed
- Plan early if diagnosis of dementia is made – likely can't drive within two years of onset of dementia (crash risk is 50%)
- Discuss alternatives
- Follow up for depression and isolation

Suggestions based on results of a study conducted at The Ottawa Hospital, consisting of interviews with patients with dementia who were instructed to cease driving and their caregivers

1. Need to prepare the patient for the inevitable fact that sooner or later they will lose their license. "…they hit you with that, bang, you should be warned".
2. It is expected that normal reactions may include anger, bargaining, depression, a sense of demoralization. Health care workers need to be prepared for dealing with emotions that arise.
3. Be prepared to offer alternatives regarding transportation; discuss Para Transpo, volunteer drivers, taxis (these can be much more economical than upkeep of a car if driven <4000 miles per year).
4. Involve family and caregivers in the discussion, solicit their support and advice regarding how to help the patient accept this difficult recommendation.
5. Recognize your own discomfort in having to discuss this with your patients. Solicit support and evidence from as many sources as possible.

Suggestions based on results of a study… continued

6. Patients and caregivers say they want more information why they can't drive and they want more detailed explanation of test results.
7. Focusing on a physical problem, such as vision loss or medications, may make the reason to cease more acceptable to the patient. Be firm yet empathic and avoid getting into argumentative discussions. Emphasize your ethical and legal responsibility and the fact that dementia is progressive and irreversible.
8. In some cases referral to another physician such as a neurologist or geriatrician for a second opinion may help preserve the patient-family physician relationship.
9. A letter from the physician to the patient explaining the reasons for driving cessation can help the patient and family refer to a written account of what was discussed.
10. If necessary explore ways to deter the person from driving with caregivers. This may include removing the keys, disabling or physically removing the car.

Byszewski A, Molnar F, Aminzadeh F. The impact of disclosure of unfitness to drive in persons with newly diagnosed dementia: patient and caregiver experiences. Clinical Gerontologist. 33(2):152 – 163, 2010.

CAREGIVER words of advice

- *"Be prepared for anger"*
- *"Be persistent and patient"*
- *"Be kind"*
- *"Don't assume the doctor knows they are driving"*
- *"Involve the doctor"*
- *"Consider the consequences of not doing it –*
  - *accident, injury, arrest and even death of the driver and others"*

Leaving the wheel – how to prepare caregivers for a discussion

- Put together a list of your safety, medical and behavioural concerns
- Discuss with family members, POA
- Get in writing MD recommendation to cease driving
- Develop transportation arrangements for the driver, you want to be able to say:
  - *"Dad, we made these arrangements for you so you can still get around"*

What can we do?
Caregiver Role:

- Consider alternatives –
  - Taxi accounts
  - Volunteer drivers
  - Para Transpo (taxi subsidy program)
  - Family/friends….
  - Paid driver
  - Arrange for meal and medication delivery so the person does not need to drive
  - Share driving with others and develop a schedule
- Spouse may need to enroll in 55 Alive course for a refresher

Being "creative"…

If significant risk exists

- Consider removing keys or substituting a second door key for ignition key
- Disabling the car (remove the battery)
- Remove the car
- Garage to tow in for repairs
- 'Donation' to grandchild….

Public Transportation

- Not perceived as a viable option
- Either unaware or reluctant to use:
  - **Inaccessible, insufficient, unreliable, inconvenient, unsafe, & unacceptable**
  - I used to walk to the bus, but now **walking to the corner is difficult**…"
  - "**I live out in the country**, so we don't have any alternatives to driving…"
  - "**I don't feel safe on the bus**."

(Adler & Rottunda, 2006; Donorfio et al., 2008b; Glasgow & Blakely, 2000; Kostyniuk & Slope, 2003; Rudman et al., 2006; Siren et al., 2004; Tuokko et al.., 2007)

Positive Consequences

- Increased time with family:
  - **"Now that I can't drive I see my niece more often, because she drives me around"** (Pellerito, 2009)
- Sense of relief & personal safety
  - **"People are just crazy today… I'm glad I'm not driving anymore."** (Pellerito, 2009)

Case 2 (b)
Possible Scenarios:

If Mr. T is unsafe to drive and resists recommendation

WHAT DO YOU DO?

Options

- **MD to write a letter for the patient stating the recommendations and reasons**
- **If Mr. T refuses to stop driving despite losing license:**
  - **need to hide keys**
  - **remove the car**
  - **disable the car (remove the battery)**
  - **consider removing**
  - **Garage to tow in for repairs**
  - **'donation' to grandchild….**
  - **call police….**

Consider if Mr. T was in fact safe (eg. Trails B was 3 minutes, no errors)

- **Address use of zopiclone and ETOH**
- **Consider**
  - **55 Alive course**
  - **on the road driving refresher**
- **Needs follow up (6-12 month review by FP)**
- **Prepare for the future**
  - **may mean moving closer to urban area if rural**
- **Discuss alternatives**
- **Emphasize the MD legal responsibility**
- **Prepare for eventual driving cessation**
- **Consider Transportation alternatives**
  - **Para Transpo, Para Taxi, ride sharing companies, volunteers**

(**Ref: Byszewski A**, Molnar F, Aminzadeh F. The impact of disclosure of unfitness to drive in persons with newly diagnosed dementia: patient and caregiver experiences. Clinical Gerontologist. 33(2):152 – 163, 2010.)

Summary - Some Practical Points:

- An accurate and appropriate diagnosis must be made
- Medico- legal responsibility to notify MOT
- Standard driver's test has high threshold
- Reassessments may be necessary
- If duration of dementia >2-3 years, risk increases
- No consistently reliable method or criteria have been established yet
- If caregiver concerned or if person involved in crash discuss with family physician

Resources

- CMA Driver's guide 8th Edition 2012
  - http://www.cma.ca/driversguide
- Driving and Dementia Toolkit for Health Professionals
  - http://www.rgpeo.com/media/30695/dementia%20toolkit.pdf
- Driving and Dementia Toolkit for Patients and Caregivers
  - http://www.rgpeo.com/media/30422/d%20%20d%20toolkit%20pt%20crgvr%20eng%20with%20hyperlinks.pdf
- Driving and dementia -Efficient approach to driving safety concerns in family practice (L Lee & F Molnar)
  - http://www.cfp.ca/content/63/1/27
- Roy M, Molnar F, Systematic review of the evidence for Trails B cut-off scores in assessing fitness-to-drive. Canadian Geriatrics Journal. 2013; 16(3): 120–142 Published online 2013 Sep 4. doi: 10.5770/cgj.16.76 (http://europepmc.org/articles/PMC3753211)