Dementia: Practical Tips for the Family Physician

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Disclosures

• I have no disclosures
Objectives

• Learn about the diagnosis and early treatment of dementia

• Learn about the current treatments, their efficacy and expected outcomes.

• List findings in the cognitively impaired patient that may indicate fitness to drive is a concern

• Discuss ways of communicating concerns about driving fitness that are less likely to harm the patient-physician relationship
Case Mrs. D

• 78 year old widow, living alone, local daughter
  • Grade 8, homemaker

• PMH:
  • COPD, high blood pressure and osteoarthritis

• Meds
  • Metoprolol, salbutamol puffer and acetaminophen

• Occasional forgetfulness - names and dates
• Repetitive, misplacing items

• Gradual onset, duration 1 - 2 years
Recommendations on Screening for cognitive impairment in older adults

Canadian Task Force on Preventative Health Care, CMAJ, January 5, 2016, 188(1)

We recommend not screening asymptomatic adults 65 years of age or older for cognitive impairment. (Strong recommendation, low-quality evidence.)
Cognitive Testing

• Mini-mental state examination (MMSE)

• Montreal Cognitive Assessment (MoCA)

• Mini-Cog
Question 1: Is there a cognitive problem?
Differential Diagnosis of Cognitive Impairment in older adults

- Normal aging
- Mild Cognitive Impairment (MCI)
- Dementia syndrome
- Delirium
- Drugs / EtOH
- Other cause
  - Chronic medical illness
  - Psych illness – depression, stress
  - OSA
  - Lifelong intellectual impairment
  - Stroke, seizure, CSDH, neurosyphilis, B12 deficiency
  - Transient Global Amnesia
- Combination factors
Question 2: What type of cognitive problem?
Quick and Rough Diagnosis

• “thinking problems”

• ”daily function problems”

• “progressive”

• Not something else – sleep disorder breathing, deficiencies, delirium, psychiatric illness
Dementia – Core Criteria

- Interference with work or usual activities
- A decline from prior level of functioning
- Not explained by delirium or psychiatric illness
- Two cognitive domains impaired by history and objective testing
  - Memory
  - Reasoning/complex tasks/ judgement
  - Visuospatial abilities
  - Language
  - Personality/ behaviour

Alzheimer’s disease?

• Gradual onset and progression (months to years)

• Initial most prominent
  • Memory: amnestic type
  • Language/ visuospatial/ executive function: nonamnestic

• Other features not present....
Tips for Non-Alzheimer’s

• Stroke or like-event temporally related to decline (Vascular Dementia)

• Early course hallucinations, mobility problems, parkinsonism, REM sleep d/o (Dementia w/ Lewy Bodies)

• Change in personality early in course (behavioral variant)

• Early prominent language problems (not necessarily word finding) – Primary progressive aphasias

• Prominent depression or anxiety (psychiatric illness)

• Medical condition affecting/ related to cognition
Question 3: What is the Diagnosis?
Table 2: Types of dementia seen in patients referred to dementia clinics in Canada

<table>
<thead>
<tr>
<th>Type of dementia</th>
<th>% of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer disease</td>
<td>47.2</td>
</tr>
<tr>
<td>Mixed Alzheimer disease</td>
<td>27.5</td>
</tr>
<tr>
<td>Mixed others</td>
<td>6.3</td>
</tr>
<tr>
<td>Vascular dementia</td>
<td>8.7</td>
</tr>
<tr>
<td>Frontotemporal dementia</td>
<td>5.4</td>
</tr>
<tr>
<td>Dementia associated with Parkinson disease or with Lewy bodies</td>
<td>2.5</td>
</tr>
<tr>
<td>Unclassifiable</td>
<td>1.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Source: Feldman et al.\(^{34}\)
Pitfalls in making a diagnosis of dementia?

1. No collateral information
2. Patient has delirium
3. Multiple sedating / anticholinergic medication use
4. Patient has lifelong cognitive deficits or low education attainment
5. Patient has significant language / sensory deficits
6. Prominent psych illness present
7. Undiagnosed sleep apnea
Functional Assessment **Staging** Tool (FAST)

1. No impairment
2. Subjective complaint, no impairment
3. Decreased organization capacity
4. Problems with complex tasks - finances, shopping, medications, housework
5. Needs prompting to change clothes
6. A. Problems dressing
   B. Problems bathing
   C. Toileting
   D. Urinary incontinence
   E. Fecal incontinence
7. Cannot walk, limited speech

“**I.R.A.N.”**

- **I** - IADLs
- **R** - Repetitive dressing
- **A** - ADLs
- **N** – Non-verbal
  Non-ambulatory
Items to consider:

• Healthy lifestyle

• Social Supports – First Link, home care, day programs, meal support

• Safety – Access/use of dangerous items, wandering, falls

• Vascular risk factors/medication review – Hypertension/Glucose target

• Specific pharmacologic treatment
Pharmacologic Treatment:

- **Cholinesterase Inhibitors:**
  - **Donepezil:** Mild-Severe Alzheimer’s disease
  - **Rivastigmine** (oral or patch): Mild to Moderate AD, mild to moderate Parkinson’s dementia
  - **Galantamine:** Mild to moderate Alzheimer’s disease

- **Improves:** Cognition, Function, Behaviours

- **Cognitive outcomes:**
  - NNT (Stabilization): 7
  - NNT (at least minimal improvement): 12
  - NNT (marked improvement): 42
  - NNH: 12 (any effect- GI upset/increased risk falling/ urinary incontinence)
Incidence of Dementia Declining?

- 1970s-1980s: 3.6 per 100 persons
- 1980s-1990s: 2.8 per 100 persons
- 1990s-2000s: 2.2 per 100 persons
- 2000s-2010s: 2.0 per 100 persons

Reasons?
- Better education, vascular risk treatment/ prevention

Satizabal C et al. Incidence of Dementia over Three Decades in the Framingham Heart Study
Now transitioning to driving...
Figure 1. Checklist of considerations in driving safety

- History of driving accidents or near accidents*
- Family member concerns*
- Trail Making A and B tests— for processing speed, “task switching,” and visuospatial and executive function
- Clock-drawing test— for visuospatial and executive function
- Copying intersecting pentagons or cube— for visuospatial function
- Cognitive test scores— possibly helpful
- Dementia severity according to the Canadian Medical Association guidelines26— inability to independently perform 2 instrumental activities of daily living or 1 basic activity of daily living

*Ask the patient and a family member separately.
Important Messages:

There is not a simple answer

No single test determines whether someone is safe to drive

On road driver’s test is gold standard
Common Errors in Driving

- Lane checking and merging

- Left Turns

- Signaling to park

- Route following

- 69% pass rate for drivers with mild dementia

Family Member Concerns

"Would you let your grandchild drive in the car with [patient]’”
Trails Making Test A
Unsafe >2min or 2 errors

Trails Making Test B
Safe <2min or 2 errors
Unsafe >3min or >3 errors
Clock Draw
Intersecting Pentagons
2 IADLs  
Or  
1 BADL

Table 1. The SHAFT and DEATH mnemonics for the instrumental and basic activities of daily living

<table>
<thead>
<tr>
<th>INSTRUMENTAL ACTIVITIES OF DAILY LIVING</th>
<th>BASIC ACTIVITIES OF DAILY LIVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shopping and social functioning</td>
<td>Dressing</td>
</tr>
<tr>
<td>Housework and hobbies</td>
<td>Eating</td>
</tr>
<tr>
<td>Accounting (banking, bills, taxes, handling cash)</td>
<td>Ambulation</td>
</tr>
<tr>
<td>Food preparation</td>
<td>Toileting</td>
</tr>
<tr>
<td>Telephone, tools, and transportation</td>
<td>Hygiene</td>
</tr>
<tr>
<td>Medication management</td>
<td></td>
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Adapted from Molnar et al.\textsuperscript{10}
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Three Options

• Safe to Drive
  • Create a plan for stopping driving
  • Follow up 6-12 months

• Unclear safety
  • Refer to on/off road driver training evaluation

• Unsafe to drive
  • No driving unless pass driver’s assessment
The Balance

• Autonomy of patient

• Public Well Being
How to keep a therapeutic alliance

• Most provinces healthcare professionals are legally mandated to report factors that could impact someone’s driving.

• Insurance requires they are updated with health conditions that may impact driving

• Increases the risk of depression
  • OR 1.91

• Also linked:
  • Poorer overall health
  • Social isolation
  • Entrance to long term care

Chihuri, S et al. Driving Cessation and Health Outcomes in Older Adults
JAGS 64:332–341, 2016
Patient Centered Approach

• Start the conversation early:
  • At diagnosis
  • Before driving needs to be stopped

• [http://geriatricresearch.medicine.dal.ca/notifbutwhen.htm](http://geriatricresearch.medicine.dal.ca/notifbutwhen.htm)

• Driving needs to be re-evaluated every 6-12 months in Mild Dementia
Some Useful Tools/ Approaches

- Have a supportive caregiver/ family member present
- Acknowledge record of driving
- Emphasize the unpredictability of the road and potential to harm self or others
- Stay firm with decision but do not argue
The patient refuses to give up driving

- Meet with family/ care giver and discuss access to the vehicle

- Provide a written statement to the patient, and family
Helpful Resource

http://www.rgpeo.com/media/30695/dementia%20toolkit.pdf
A written reminder can be helpful

SAMPLE - WRITTEN STATEMENT TO THE PATIENT

Date: ..................................................

Name: ..........................................................................................................

Address: ......................................................................................................

Dear Mr (Mrs):

I realize that this is a difficult recommendation for you, but based on the results of tests performed, I am recommending you do not drive.

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 that raise concerns about driving safety include:

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As your doctor, I have a legal responsibility to report potentially unsafe drivers to the Provincial Registrar. 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
Where is my self driving car when I need it?

• Questions?
Thanks to:

- Dr. D. Carver