Diagnosis and Management of Mild Cognitive Impairment and Dementia in the Primary Care Setting

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Neurosciences Clinical Program
Objectives

• Understand the difference between mild cognitive impairment and the syndrome of dementia
• Know which assessments are recommended for dementia diagnosis
• Be able to make diagnoses of Alzheimer’s dementia and Vascular Dementia
• Describe treatment of dementia, both pharmacologic and non-pharmacologic
• Learn approaches for neuropsychiatric symptoms of dementia
Meeting the needs of patients with dementia and their caregivers

“Take me and my family seriously if we report a concern about memory.”

“Give me a diagnosis and explain how you arrived at it and what to expect.”

“Help me plan for the future.”

“Tell me and my family what we can do to help the situation.”

“Refer me to resources. Set up a time for us to meet with your care manager. Give me the phone number for the Alzheimer’s Association.”
What is Dementia?

A syndrome of cognitive impairment in two or more domains (for example: problem solving, memory, language) that is

• Progressive AND

• Is not due to another medical or psychiatric cause AND

• Causes decline in ability to carry out responsibilities and live independently (functional impairment)

The diagnosis of dementia is based primarily on the patient's history and exam

*It is also the illness that Americans fear most – more than cancer, stroke or heart disease.*
Dementia is a Syndrome with multiple etiologies

DEMENTIA

An “umbrella” term used to describe a range of symptoms associated with cognitive impairment.

- Alzheimer’s: 50%-75%
- Vascular: 20%-30%
- Lewy Bodies: 10%-25%
- Frontotemporal: 10%-15%

Mixed Dementia = >1 Neuropathology - Prevalence Unknown
Initial Evaluation (at AWV or first cognitive appointment)

ALGORITHM 1: Diagnosing Dementia and Mild Cognitive Impairment (MCI)

- COGNITIVE CONCERN OR SCORE \( \leq 2 \) ON MINI-COG™* AT ANNUAL WELLNESS VISIT (AWV)
  
*NOTE: Diagnostic forms and tools appear on pages 21–24.

- Delirium present?
  - no
    - MAKE appointment with patient AND caregiver to address cognition (b)
  - yes
    - FIND and TREAT cause of delirium.
      (Add to problem list: Code R41.0)

If cognitive concern, add to problem list: Code R41.9.
First Cognitive Appointment with PCP

**PRE-APPOINTMENT** — Performed by medical assistant (MA) or care manager (CM)

- **ADMINISTER** MoCA* to patient. **HAVE** Informant do surveys outside room: Functional Assessment Questionnaire (FAQ)* and Stress Thermometer*
- **SCORE** MoCA, FAQ, and Stress Thermometer, and **GIVE** to PCP for appointment

MoCa score < 26 OR red flags? (c)

- **yes**
  - If behavioral disturbance, **ASSESS/TREAT** by Behavioral Disturbance Algorithm (page 14); **CONSIDER** MHI referral(d)

- **no**
  - **RULE OUT** non-dementia causes of impairment
    - **CONDUCT** history and physical(e), **REVIEW/ORDER** labs(f), **AND RECONCILE** medication list(g) with PharmD consult (if available)

**ADDRESS** any findings

- If depression**
- If uncontrolled illness/deficiency
- If medication side effects or reactions
Use your team: training for MiniCog and MoCA

-MiniCog: sensitive and specific for a diagnosis of dementia

-MoCA: sensitive and specific for Mild Cognitive Impairment and early dementia
Assessing function: the FAQ

- Pay bills
- Assemble tax records
- Shop alone
- Play a game of skill or work on a hobby
- Heat water and turn off stove
- Prepare a balance meal
- Keep track of current events
- Discuss a TV show or book
- Remember appointments and medications
- Travel out of the neighborhood
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CONDUCT history and physical (e), REVIEW / ORDER labs (f), AND RECONCILE medication list (g) with PharmD consult (if available)

ADDRESS any findings

- If depression**
- If uncontrolled illness / deficiency
- If medication side effects or reactions
PCP Visits 2-3

TREAT, RE-EVALUATE by phone in 1–2 weeks; then, FOLLOW UP monthly X 3 months

Cognitive impairment remaining? no

DISCUSS brain health with patient (page 8)

Red flags remaining? (c) yes

ORDER brain imaging (h) AND REFER to neurology (i)

Determine functional status (based on FAQ result):

<table>
<thead>
<tr>
<th>Functional status unclear</th>
<th>Function impaired</th>
<th>Function not impaired (Add to problem list: Code G31.84)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSIDER referral to neuropsychology (j) OR RE-EVALUATE in 3–6 months</td>
<td>ORDER brain imaging (h)</td>
<td>DIAGNOSE mild cognitive impairment (MCI), educate on brain health (see page 8), and re-evaluate annually</td>
</tr>
</tbody>
</table>

PCP Visit 2–4

DIAGNOSE dementia (k)

Without behavioral disturbance (Add to problem list: Code F03.90) OR With behavioral disturbance (Add to problem list: Code F03.91)

ASSESS stage using table 2 (page 5)
TREAT/MANAGE care per guidance (pages 9–18)
Referral to Neuropsychology

- Assistance with differential diagnosis, esp. MCI vs. early dementia
- Identify cognitive/emotional strengths and limitations
- Address patient/family adjustment/intervention/education for patients with MCI and dementia
- Assess capacity/safety (including driving/supervision/assisted living needs)
- Management of psychiatric and behavioral symptoms related to cognitive impairment
- Pseudodementia: evaluate to what extent psychiatric symptoms are contributing to cognitive deficit
Referral to Neurology

*** First rule out and/or treat delirium ***

- Atypical presentation or rapid progression
- Neurologic deficits or findings
- Patient or family request for neurology consult or specialized testing or imaging
- Behavioral manifestations that are suspicious for frontotemporal dementia
- Dementia in setting of another neurologic disorder such as Parkinson’s disease
- Parkinsonism (tremor, slow movement, impaired speech, stiffness, orthostatic hypotension)

*** Indicate reason (dementia), any red flags, findings on brain images, whether urgent consult is needed ***
# The importance of assessment of functional status

<table>
<thead>
<tr>
<th>Cognitive Impairment</th>
<th>Normal Age Related Forgetfulness</th>
<th>Mild Cognitive Impairment</th>
<th>Dementia</th>
</tr>
</thead>
</table>
| • Occasionally forgetting where you left things such as glasses or keys.  
  • Forgetting names of acquaintances or why you entered a room | • Decline from previous level  
  • Not due to delirium  
  • Not due to another diagnosis | • SAME |

<table>
<thead>
<tr>
<th>Functional Impact</th>
<th>None</th>
<th>Cognitive deficits <strong>do not interfere</strong> with IADLs</th>
<th>Cognitive deficits <strong>interfere</strong> with IADLs</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Screening Test</th>
<th>MoCA</th>
<th>Mini-Cog</th>
</tr>
</thead>
</table>

PCP Visits 2-3

TREAT, RE-EVALUATE by phone in 1–2 weeks; then, FOLLOW UP monthly X 3 months

Cognitive impairment remaining?
  yes
  Red flags remaining? (c)
  no

DISCUSS brain health with patient (page 8)

• ORDER brain imaging (h) AND
• REFER to neurology (i)

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PCP Visit 2–4

DIAGNOSE dementia (k)
Without behavioral disturbance (Add to problem list: Code F03.90)
With behavioral disturbance (Add to problem list: Code F03.91)

ASSESS stage using table 2 (page 5)
TREAT/MANAGE care per guidance (pages 9–10)
### Staging of Dementia

#### TABLE 2. Stages of cognitive impairment based on functional status

<table>
<thead>
<tr>
<th>IADL or ADL*</th>
<th>Mild Cognitive Impairment</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild</td>
<td>Moderate</td>
</tr>
<tr>
<td>Able to pay bills, balance checkbook independently</td>
<td>Yes with some difficulty</td>
<td>Requires assistance</td>
</tr>
<tr>
<td>Able to shop for groceries or clothes alone</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Able to bathe, dress self</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
## Criteria for the most common dementia etiologies

<table>
<thead>
<tr>
<th>Etiology</th>
<th>ICD 10 Codes</th>
<th>Etiology Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alzheimer’s disease</strong></td>
<td>G30.9 (unspecified) AND F02.80 or F002.81</td>
<td>• Gradual onset of symptoms over months to years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Most prominent feature is memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Impaired learning and recall of recently learned information</td>
</tr>
<tr>
<td><strong>Vascular dementia</strong></td>
<td>F01.50 or F01.51</td>
<td>• Stepwise decline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• History of clinically apparent stroke that is temporally related to cognitive decline</td>
</tr>
<tr>
<td><strong>Mixed dementia</strong></td>
<td>Code predominant etiology first</td>
<td>Criteria for multiple dementia syndrome etiologies are met; mixed vascular and Alzheimer’s disease most common</td>
</tr>
<tr>
<td><strong>Dementia with Lewy bodies</strong></td>
<td>G31.83 AND F02.80 or F02.81</td>
<td>2 of 3 required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fluctuating cognition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recurrent visual hallucinations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Parkinsonism (bradykinesia, muscular rigidity, tremor, postural instability)</td>
</tr>
<tr>
<td><strong>Frontotemporal dementia</strong></td>
<td>G31.09 AND F02.80 or F02.81</td>
<td>3 of 6 required</td>
</tr>
<tr>
<td></td>
<td>Consider Z55-65 or 91</td>
<td>• Disinhibition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Apathy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Loss of empathy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compulsive behaviors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hyperorality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Impaired exercise function</td>
</tr>
</tbody>
</table>
Treatment

**DEMENTIA DIAGNOSED**

BEGIN non-pharmacologic treatment care planning *(page 9)* AND DISCUSS pharmacologic treatment

**CONSIDER** prescribing medications by dementia type

Refer to medication tables (pages 15–16) for dosing and details about specific medications

- **Alzheimer’s disease**
  - Mild
  - Moderate/severe
  - Donepezil*
  - Add memantine*
  - Aspirin (unless contraindicated)
  - Treat vascular risk factors as appropriate (hypertension, diabetes, high cholesterol)
  - Donepezil*
  - Consider memantine* (moderate to severe stages)

- **Vascular and mixed dementias**
  - Donepezil*

- **Frontotemporal, Lewy-body, and Parkinson’s Dementias**
  - Refer to neurology
  - Avoid antipsychotics in Lewy-body and Parkinson’s dementias (if anti-psychotic needed, choose seroquel at lowest possible dose: 12.5 mg QHS)
  - Cholinesterase inhibitors may or may not be helpful in frontotemporal dementia
  - Memantine is not recommended

**ASSESS** medication and adjust dosing as necessary at each follow-up appointment
Treatment: Non-Pharmacologic

- Education
- Caregiver support
- Safety
- Advance care planning
- Help maintain function

(see page 9 of CPM)
Treatment: Support the Caregiver(s)
Assessment of Caregiver Stress
Caregiver support

• Provide education (see patient/caregiver education in CPM)

• Connect with community resources
  o Alzheimer’s Association
  o Area Agencies on Aging
  o Dementia Dialogues training

• Refer to Care Manager for:
  o New diagnosis
  o High caregiver stress

• Evaluate and treat behavioral disturbance

• Empower caregiver to care for themselves!
Treatment: Establish safe environment

- **Fall risk**
  - Consider PT

- **Wandering**
  - Safe Return program

- **Medication**
  - Use pill box
  - Identify helper

- **Hazards in the home**
  - OT home safety evaluation
  - Can be ordered through outpatient OT

- **Driving**
Dementia and driving

• Be sensitive to role of driving in sense of independence
• Ask to see driver’s license
• Patients with advanced dementia should not drive
• For patients with mild and moderate dementia, assess risk and obtain objective assessment of driving ability
  o Prior accidents and citations, self restricted driving, family report of unsafe driving
  o Occupational therapy evaluation for driving assessment (off-road and on-road)
  o On-road driving skills test at DMV
Reporting to Driver’s License Division
Treatment: Optimize functioning

• Social engagement
• Vision
• Hearing
• Continence
• Mobility
• Nutrition
Referral to Speech, Language, Pathology

- Consider for patients with MCI or early dementia who might benefit from multiple sessions focused on ways to maintain function for longer
Resources at Intermountain Home Health

- Valuable resource for homebound patients
- Speech therapists can conduct cognitive assessment
- Home Health team can perform medication reconciliation, assess functional status, safety & help with advance care planning
- Your Care Manager can help you determine eligibility and coordinate referrals
### Treatment: Pharmacologic

<table>
<thead>
<tr>
<th>Alzheimer’s Dementia</th>
<th>Vascular Dementias</th>
<th>Fronto-temporal, Lewy-body or Parkinson’s Dementias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Moderate/Severe</td>
<td></td>
</tr>
</tbody>
</table>
| • Donepezil (If nightmares occur, switch to morning dosing) | • Donepezil  
• Add memantine | • Aspirin (unless contraindicated)  
• Treat vascular risk factors as appropriate (hypertension, diabetes, high cholesterol)  
• Donepezil  
• Consider memantine (moderate to severe stages) | • Refer to neurology  
• Avoid antipsychotics in Lewy-body and Parkinson’s dementia (if anti-psychotic needed, choose Seroquel at 12.5 mg qhs)  
• Cholinesterase inhibitors may or may not be helpful in frontotemporal dementia  
• Memantine is NOT recommended |
|                      |                   |                                                  |

**Note:**

When caring for patients with dementia, stopping offending medications is often a far more important/effective intervention than starting a new medication, such as a cholinesterase inhibitor, and should always be considered first.
Titrating donepezil and memantine

• Donepezil
  o 5 mg AM X 1 month
  o Increase to 10 mg qday
  o If diarrhea develops decrease dose/titrate slower

• Memantine
  o 5 mg once a day x 1 month
  o 5 mg BID X 1 month
  o (5 mg AM, 10 mg PM)
  o 10 mg BID

• May cause nightmares--if so give in AM
Behavioral Disturbance Step One: Describe Behavior and Impact

- What was the exact behavior?
- When did it occur?
- Where did it occur?
- Who was there?
- What happened prior to the behavior?
- How did the caregiver react?
- How distressing was the behavior to the caregiver?
Behavioral Disturbance Step Two: Evaluate and Treat Precipitating Factors

- Medication side effects
- Impaired vision/hearing
- Poor nutrition/hydration
- Illness
- Undertreated pain
- Bowel/bladder dysfunction
- Poor sleep
- Unpredictable routine
Behavioral Disturbance Step Three: Provide Caregiver Education

- Help caregiver understand that patient behavior is not intentional
- DON’T ARGUE
- Redirect
- Give choices
- One step instructions
Behavioral Disturbance Step Four: Medication
<table>
<thead>
<tr>
<th>Depression/Anxiety</th>
<th>Agitation/Aggression/Psychosis</th>
<th>Sleep Disturbance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholinesterase inhibitor</td>
<td>Cholinesterase inhibitor</td>
<td>Sleep hygiene:</td>
</tr>
<tr>
<td>Memantine (as appropriate by diagnosis)</td>
<td>Memantine</td>
<td>• Cut off electronics in evening</td>
</tr>
<tr>
<td>Sertraline or citalopram (start at low dose and titrate slowly)</td>
<td>SSRI if symptoms mild</td>
<td>• Discontinue caffeine</td>
</tr>
<tr>
<td></td>
<td>Antipsychotic if severe symptoms or non-response to SSRI (see table 6 on page 17 for cautions)</td>
<td>• Minimize daytime napping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provide exercise, stimulation, and exposure to light during day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Trazodone: (25–100 mg given 1 hour before bedtime)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Melatonin (limited evidence)</td>
</tr>
</tbody>
</table>

First-line treatment for all disturbance types: Implement non-pharmacological interventions

- Train caregivers in behavioral management strategies (see sidebar on page 12)
- Exercise
- Music
- Participation in pleasant events
- Manage caregiver stress: counseling, support groups, local resources (area agency on aging, Alzheimer's groups, in-home help, adult day care, out-of-home respite care)
Take Home Points

• Administer and review the Mini-Cog at all AWVs
• If patient scores 2 or less on the Mini-Cog, a MoCA should be administered at the AWV or at an appointment in the near future
• If a patient has a memory concern, skip the Mini-Cog and go straight to the MoCA
• A functional assessment must be done in order to make a diagnosis of dementia: use the Functional Activities Questionnaire
Take Home Points

• Using a team approach, primary care providers can effectively diagnose and manage Alzheimer’s Disease and Vascular Dementia
• Use the Dementia Flash Card on the Intermountain Physician App
• Caregiver support is essential in the treatment of patients with dementia
• The first step in the treatment of behavioral disturbance is to describe the behavior in detail
• Do not argue with a patient with dementia!