Diagnosis and Management of Dementia in the Primary Care Setting

Meg Skibitsky, MD, MPH, Geriatrics
Intermountain Senior Clinic
Cognitive Care Development Team, Neurosciences
Clinical Program

Cathleen Obray, MD, MHS
River Road Internal Medicine
Objectives

• Describe the recommended approach to cognitive assessment at the Annual Wellness Visit
• Know when and how to administer the Mini-Cog and MoCA, where to find these forms and how to access MyLearning training on these tools
• Understand how to evaluate cognitive impairment and make a diagnosis of dementia
• Be familiar with the criteria for the diagnoses of Alzheimer’s disease and vascular dementia
• Review the basics of non-pharmacologic and pharmacologic management of dementia
Why do cognitive assessments?

• Utah is expected to experience a 127% increase in prevalence of dementia by 2050 (@50,000 will be living with dementia)
• Less than 50% of cases are diagnosed
• While there is no cure yet, interventions have been shown to
  — Prolong independence at home
  — Decrease the cost of care
  — Improve patient quality of life
  — Improve caregiver health
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
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
### Difference between Mild Cognitive Impairment and Dementia and Relevant Screening Tool

<table>
<thead>
<tr>
<th></th>
<th>Mild cognitive impairment</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive impairment</td>
<td>• Decline from previous level</td>
<td>• SAME</td>
</tr>
<tr>
<td></td>
<td>• Not due to delirium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Not due to another diagnosis</td>
<td></td>
</tr>
<tr>
<td>Functional impact</td>
<td>Cognitive deficits do not interfere with IADLs</td>
<td>Cognitive deficits interfere with IADLs</td>
</tr>
<tr>
<td>Screening tool</td>
<td>MoCA</td>
<td>Mini-Cog</td>
</tr>
</tbody>
</table>
Mini-Cog

• 2-3 minutes to administer
  – 3 item recall
  – Clock draw
• Possible score 0-5:
  – \( \leq 2 \): Impaired
  – \( >2 \): Not impaired
• Recommended for use at the Annual Wellness Visit
MoCA (Montreal Cognitive Assessment)

- 20 minutes to administer
- Sensitive to Mild Cognitive Impairment
- Available in many languages and sight impaired
- Assessment of memory complaint OR follow up to abnormal Mini-Cog
MyLearning Mini-Cog and MoCA training

• 12 minute training
• Appropriate for Care Managers, Medical Assistants, Providers
• Search for Mini-Cog on MyLearning to access (instructions in your packet)
Case Presentation

• Margaret is a 77 year old, married woman with well controlled cardiomyopathy (has a pacemaker), DM2 (on metformin), mild to moderate anxiety, coronary artery disease and osteoarthritis
• From time to time, she has reported vague memory concerns
• She is coming in today for her Annual Wellness Visit with her husband
• Notable Family History – sister had AD
• Her PHQ 2 score is 1/2 (anhedonia)
• Her husband is concerned about her driving and pulls you aside to tell you that she recently backed into a neighbor’s mailbox
Diagnosis of the Dementia Syndrome

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

COGNITIVE CONCERN OR SCORE ≤2 ON MINI-COG™* AT ANNUAL WELLNESS VISIT (AWV)

(If cognitive concern, add to problem list: Code R41.9)

*NOTE: Diagnostic forms and tools appear on pages xx–xx.

no

Delirium present?
See DSM V criteria (a)

yes

FIND and TREAT cause of delirium.
(Add to problem list: Code R41.0)

MAKE appointment with patient AND caregiver to address cognition (b)
Visit 2

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)

If behavioral disturbance, ASSESS/TREAT by Behavioral Disturbance Algorithm (Page X): CONSIDER MHI referral (d).

RULE-OUT non-dementia causes of impairment
CONDUCT history and physical (e), REVIEW/ORDER labs (f), and RECONCILE medication list (g) with Pharm D consult (if available).

ADDRESS any findings
If depression
CONSIDER MHI referral (d) if: Depression ≥ moderate

TREAT and RE-EVALUATE by phone in 1–2 weeks; then, FOLLOW-UP monthly x 3 months.
Medication reconciliation is critically important

*Patients/caregivers MUST bring prescription and OTC medications and any supplements in BOTTLES*
Visit 2

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

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- 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 X); 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 Pharm D consult (if available)

ADDRESS any findings

- If depression
  - CONSIDER MHI referral (d)
  - if: Depression ≥ moderate

- If uncontrolled illness/deficiency

- If medication side effects or reactions

TREAT and RE-EVALUATE by phone in 1–2 weeks; then, FOLLOW-UP monthly x 3 months
Indications for Referral to Mental Health

• New onset behavioral disturbance
• Late onset psychosis
• Moderate to severe depression
• Preexisting psychiatric diagnosis that has been exacerbated by impairment
• Coexisting substance dependence
• Emotional adjustment to cognitive impairment
Visit 3

Cognitive impairment remaining? [no → DISCUSS brain health with patient
yes → Red flags remaining? [c]
   yes → ORDER brain imaging [h] AND REFER to neurology [i]
   no → 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>
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<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, and re-evaluate annually</td>
</tr>
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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 1
TREAT/MANAGE care per guidance on page xx
Red Flags

- Age <65
- Family reports rapid progression or significant decline from baseline
- Upper motor neuron signs (upgoing toes, hyper-reflexia, myoclonus)
- Parkinsonism
- New focal neurologic deficit
- New significant gait abnormality
- New onset Seizures
- Language dysfunction
Indications for 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 ***
**Visit 3**

**PCP Visit 1-3**

**DETERMINE functional status (based on FAQ result):**

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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 1**

**TREAT/MANAGE care per guidance on page xx**

**DISCUSS brain health with patient**

- ORDER brain imaging (h) AND REFER to neurology (i)
Indications for 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
Visit 3

**Cognitive impairment remaining?**

- **no** DISCUSS brain health with patient
- **yes**
  - **Red flags remaining?**
    - **no**
    - **yes** ORDER brain imaging (h) AND REFER to neurology (i)

**DETERMINE functional status (based on FAQ result):**

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**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 1**

**TREAT/Manage care per guidance on page xx**
Indications for Referral for Brain Imaging

- Structural brain imaging recommended for the evaluation of dementia
- Non-contrast MRI preferred: Indicate “IHC Dementia Protocol”
- If contraindicated, order non-contrast CT
- Do not re-image in typical cases, if MRI has been done within previous 3 years
Visit 3

**Cognitive impairment remaining?**
- **no** → DISCUSS brain health with patient
- **yes** → **Red flags remaining? (c)**
  - **yes** → ORDER brain imaging (h) **AND** REFER to neurology (i)
  - **no** → DETERMINE functional status (based on FAQ result):
    - **Functional status unclear**
      - CONSIDER referral to neuropsychology (j) OR RE-EVALUATE in 3–6 months
    - **Function impaired**
      - ORDER brain imaging (h)
    - **Function not impaired (Add to problem list: Code G31.84)**
      - DIAGNOSE mild cognitive impairment (MCI), educate on brain health, and re-evaluate annually

**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 1**
**TREAT/MANAGE care per guidance on page xx**
## Making a Diagnosis of Dementia Etiology

<table>
<thead>
<tr>
<th>Criteria for diagnosis of most common causes of dementia</th>
</tr>
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<tbody>
<tr>
<td><strong>ICD 10 codes</strong></td>
</tr>
<tr>
<td>Alzheimer’s disease</td>
</tr>
<tr>
<td>G 30.1 &amp; F02.80 or F02.81</td>
</tr>
<tr>
<td>Vascular Dementia</td>
</tr>
<tr>
<td>F01.50 or F01.51</td>
</tr>
<tr>
<td>Mixed Dementia</td>
</tr>
<tr>
<td>Code predominant etiology first</td>
</tr>
<tr>
<td>Dementia with Lewy Bodies</td>
</tr>
<tr>
<td>G31.83 &amp; F02.80 or F02.81</td>
</tr>
<tr>
<td>Frontotemporal Dementia</td>
</tr>
<tr>
<td>G31.09 &amp; F02.80 or F02.81, consider Z55-65 or 91</td>
</tr>
</tbody>
</table>

- Gradual onset of symptoms over months to YEARS
- Most prominent features is memory
- Impaired learning and recall of recently learned information
- Stepwise decline
- History of clinically apparent stroke that is temporally related to cognitive decline
- Criteria for multiple dementia syndrome etiologies are met. Most common is mixed vascular and Alzheimer’s.

- 2 of 3 required
  - Fluctuating cognition
  - Recurrent visual hallucinations.
  - Parkinsonism (bradykinesia, muscular rigidity, tremor, postural instability)

- 3 of 6 required
  - Disinhibition
  - Apathy
  - Loss of empathy
  - Compulsive behaviors
  - Hyperorality
  - Impaired executive function/decision making
### TABLE 2. Stages of cognitive impairment based on functional status

<table>
<thead>
<tr>
<th>IADL or ADL*</th>
<th>Mild Cognitive Impairment</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to pay bills, balance checkbook independently</td>
<td>Yes with some difficulty</td>
<td>Requires assistance</td>
<td>Dependent</td>
<td>Not able to participate</td>
</tr>
<tr>
<td>Able to shop for groceries or clothes alone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Able to bathe, dress self</td>
<td>Yes</td>
<td>Yes</td>
<td>Dependent</td>
<td>Not able to participate</td>
</tr>
</tbody>
</table>

*Instrumental activity of daily living (IADL) or activity of daily living (ADL), taken from Intermountain's Health Risk Assessment for the Medicare annual wellness visit.*
**Management of dementia**

**BEGIN non-pharmacologic treatment (see care plan guideline)**

**DISCUSS pharmacologic treatment**

**CONSIDER prescribing medications by dementia type**

*See CPM medication tables for dosing and details about specific medications*

<table>
<thead>
<tr>
<th>Alzheimer's disease</th>
<th>Vascular and mixed dementias</th>
<th>Fronto-temporal, Lewy-Body, and Parkinson's Dementias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donepezil*</td>
<td>Aspirin (unless contraindicated)</td>
<td>Refer to Neurology</td>
</tr>
<tr>
<td>Start at 5 mg at night. May increase to 10 mg daily after 4-6 wks (if nightmares occur, switch to morning dosing).</td>
<td>Treat vascular risk factors as appropriate (hypertension, diabetes, high cholesterol)</td>
<td>Avoid antipsychotics in Lewy-body and Parkinson's dementias (if anti-psychotic needed, choose seroquel at lowest possible dose (12.5 mg QHS))</td>
</tr>
<tr>
<td>Add memantine*</td>
<td>Donepezil*</td>
<td>Cholinesterase inhibitors may or may not be helpful in frontotemporal dementia</td>
</tr>
<tr>
<td>Immediate release: 5 mg once daily, titrate at 5 mg/wk (intervals may be longer) to a goal dose of 20 mg/day</td>
<td>Consider memantine* (moderate to severe stages)</td>
<td>Memantine is not recommended</td>
</tr>
</tbody>
</table>

*See medication tables on page x for more detailed dosing and side effects.*

**ASSESS medication and adjust dosing as necessary at each follow-up appointment**
Non pharmacologic treatment of dementia

- Patient and caregiver education
- Caregiver support: Alzheimer’s hotline, area Agency on Aging
- Safety: driving, wandering, fall risk
- Advance care planning
- Early stages and MCI – focus on exercise, good nutrition (Mediterranean diet), social engagement
Caregiver support

• Supporting caregivers improves health and quality of life for patients
• Caregivers are also our patients! Caregiver support improves health of caregivers
• Educate about the disease and connect patient/family to local and national resources
• Provide guidance on safety, driving, agitation, and help family plan for need for increased supervision as dementia progresses
# Pharmacologic Management of Dementia

<table>
<thead>
<tr>
<th>Alzheimer's disease</th>
<th>Vascular and mixed dementias&lt;sup&gt;KAV&lt;/sup&gt;</th>
<th>Fronto-temporal, Lewy-Body, and Parkinson's Dementias</th>
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<tr>
<td><strong>Mild</strong></td>
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<td></td>
<td>to a goal dose of 20 mg/day</td>
<td></td>
</tr>
<tr>
<td><strong>Moderate/severe</strong></td>
<td>• Aspirin (unless contraindicated)</td>
<td></td>
</tr>
<tr>
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<td>• Treat vascular risk factors as appropriate (hypertension, diabetes, high cholesterol)</td>
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</table>
What Patients and Caregivers want from their Healthcare Provider

- Take me and my family seriously if we report a concern about memory and do an objective evaluation
- Give me a diagnosis
- Give me information about my diagnosis and schedule a follow up
- Tell me and my family what to expect
- If you refer me to a specialist, please follow up
- Give me and my family the number for the Alzheimer’s Association and encourage us to get involved
- Set up a time for me and my family to meet with your care manager
Take home points

• The Mini-Cog is the recommended cognitive assessment for use at the Annual Wellness Visit. A score of **2 or less** requires further testing and follow up

• Dementia is a **syndrome** with many etiologies—the most common cause by far is Alzheimer's disease followed by Vascular Dementia and Alzheimer’s/Vascular Dementia combined

• Dementia is diagnosed by cognitive impairment in multiple domains which is **NOT** explained by medical or psychiatric causes **AND** which impacts patients ability to function independently. **An informant** is needed to complete an accurate functional assessment. It is not diagnosed by a lab test, an imaging study or by MoCA score alone.
Take home points

• While there are some medications that can slow the progression of dementia in some patients, the *cornerstone* of treatment for all dementia syndromes is caregiver support and non-pharmacologic interventions.

• A diagnosis of Alzheimer’s disease is made when cognitive decline has a gradual onset and slowly progressive course and the most prominent deficit is in recall of recently learned information.

• A diagnosis of Vascular Dementia is made when there is history of a clinically apparent stroke that is temporally related to cognitive decline.
Resources

• Cognitive Impairment and Dementia Care Process Model coming this fall
• Alzheimer's Disease Education and Referral (ADEAR) Center: https://www.nia.nih.gov/alzheimers
• Alzheimer’s Association: http://www.alz.org/care/
• 24-hour support line: 1-800-272-3900
• Department of Aging and Family Services:
  – Weber Area Agency on Aging: 801-625-3770
• Family Caregiver Alliance: caregiver.org
• Robert.Hoesch@imail.org for questions about Neurology referrals
• Meg.Skibitsky@imail.org if you have questions about the care process model or would like training for your clinic