Mild Cognitive Impairment (MCI) or Dementia

CANYONS, DESERT, AND PEAKS REGIONS

2024 Update

This guideline, created by the Neurosciences Clinical Program and multiple other stakeholders, aims to assist primary care teams in diagnosing dementia and providing optimal treatment and support to patients and their loved ones. It is based on existing guidelines and expert opinion.

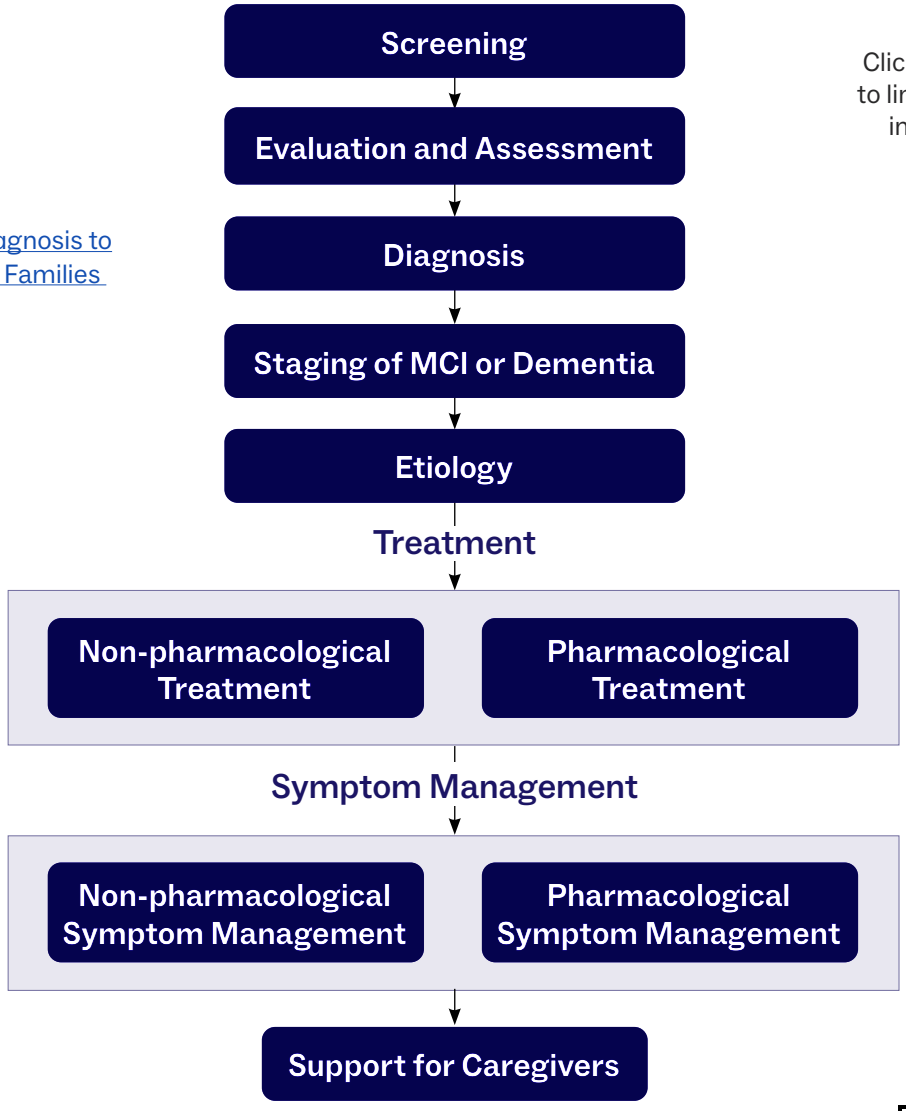
Goals of this Guideline

Screening: Improve rate of annual cognitive screening for patients ≥65

Diagnosis: Improve rate of successfully capturing a diagnosis of dementia (HCC) or mild cognitive impairment (MCI) in the patient record.

Click on buttons to link to detailed information

Explaining Diagnosis to Patients and Families



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Intermountain Health

Screening

- Complete Mini-Cog assessment or other Intermountain Health approved digital screening tool yearly at annual wellness visit for patients ≥ 65 years old or with suspected cognitive impairment.
- For abnormal score, schedule a separate visit for an evaluation and assessment for dementia. Ask the patient to bring a friend or family member who is familiar with their day-to-day activities to the appointment.

Evaluation and Assessment for MCI and Dementia[1]

History	• Timeline of memory changes • Description of symptoms • Current living situation and family support • Educational and employment history • Sleep apnea: STOP-BANG assessment; If sleep apnea has already been diagnosed determine patient adherence to CPAP or BiPAP; consider referral to sleep specialist for testing • Depression: Evaluate and treat depression • Review of dementia risk factors – Vascular events – Sleep apnea – Psychiatric diagnoses – Head injuries – Family history of dementia – Diabetes[2,3] – Epilepsy – Chronic substance use – Hypoglycemia
Cognitive Assessment	• SLUMS – St. Louis Mental Status exam (FREE) • MoCA – Montreal Cognitive Assessment (if paid training has been completed) • Other Intermountain Health-approved digital screening tool
Functional Assessment	• Use caregiver informant • Assess Basic Activities of Daily Living and Instrumental Activities of Daily living; See Activities of Daily Living (pg 3) • Consider using a standardized assessment form such as the Functional Activities Questionnaire
Physical Exam	**Assess for red flags that may indicate other health problems are contributing to cognitive decline:** • Signs of Parkinsonism: bradykinesia, resting tremor, rigidity, masked facies, shuffling gait, and postural instability • Focal neurological deficits • Gait changes • Bradycardia, or other cardiac arrhythmias
Labs	• TSH • CBC • Consider HIV and syphilis screening if risk factors are present • Vitamin B12 (Goal >300) • CMP
Imaging	• Offer MRI w/out contrast if brain imaging has not been completed in last 3 years. (CT without contrast is acceptable if patient is unable to undergo MRI) • Imaging is not required for diagnosis or MCI or dementia; however it can be useful in determining etiology and treatment **Imaging is strongly recommended if any red flags below are present:** • Age <60 • Sudden change or decline • Suspicion of stroke • Localizing neurological signs • History of cancer • Combination of cognitive impairment, gait disorder, urinary incontinence • Recent head injury • Anticoagulant use
Medication Review Consider clinical pharmacist referral if available	Assess: • Polypharmacy • Need for renal/hepatic dose adjustments • Drug-drug interactions • Use of over the counter, natural, herbal, or supplements that may be contributing to a patient's concerns • De-prescribing options • Anticholinergic medications: sleep aids, antihistamines, oxybutynin, and tricyclic antidepressants are of particular concern in worsening cognition and increased risk of falls Tools to help assess current therapy: – Beer's List – STOP/START criteria – Medication Appropriateness Index

Diagnosis and Documentation of MCI and Dementia

- **MCI:** Impaired cognition without impairment in function
- **Dementia:** If patient has impaired cognition and impaired function and no other cause is found add diagnosis of dementia (HCC) and indicate stage; See Staging section below).
- If further specification is desired consider referral to geriatrics or neurology; See Etiology section

Staging of Dementia

Staging is based on the National Institute on Aging- Alzheimer's Association (NIA-AA) Staging and is based on the approximate MoCA score in addition to the patient's ability to independently accomplish the Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). See table of *Activities of Daily Living* below.

- **Mild Dementia:** Patient requires help with Instrumental Activities of Daily Living but can participate, and is still independent in Activities of Daily Living
- **Moderate Dementia:** NIA-AA does not have a single definition for this. Intermountain Health defines moderate dementia as dependent in all IADLs, but able to participate in ADLs
- **Severe Dementia:** Patient is fully dependent in IADLs and ADLs

Staging of Dementia

	Mild	Moderate	Severe
Activities of Daily Living (ADLs)	Independent	Requires assistance, but can participate	Dependent
Instrumental Activities of Daily Living (IADLs)	Requires assistance, but can participate	Dependent	Dependent
MoCA score (approximate)	18–25	10–17	<10

Activities of Daily Living

Activities of Daily Living (ADLs)		Instrumental Activities of Daily living (IADLs)	
• Eating	• Transferring	• Managing finances	• Shopping
• Bathing	• Walking	• Managing medication	• Cooking
• Dressing	• Grooming	• Driving and transportation	• Communication (email, phone)
• Toileting		• Household upkeep	

Explaining Diagnosis to Patients and Families

- Distinguish MCI (mild memory loss that does not impede independent functioning) from dementia (memory loss that impairs at least one area of independent functioning).
- Explain that MCI and dementia can be caused by reversible things, such as sleep apnea or can be due to irreversible processes.
- Alzheimer's Disease is an irreversible neurodegenerative disease that leads to dementia.
- Emphasize brain health interventions (such as the non-pharmacological interventions listed below) but advise patients to avoid programs making extraordinary claims and over the counter memory aides as these can be expensive and do not have evidence supporting their efficacy.
- Resources for providers:
  - Telling someone they have dementia (Forward with Dementia UK)
  - The Science, Ethics and Art of Disclosing a Dementia Diagnosis (Psychiatric Times)
  - Disclosure of Diagnosis (Alzheimer's Association)

Etiology of Dementia

- There are several causes of dementia with Alzheimer's being the most common; See the Etiology table below.
- Identifying the cause of dementia can guide treatment and help patients and their families plan for the future
- Consider etiology and refer to geriatrics or neurology if further specification is desired; See table below

Description of Common Forms of Dementia [4]

Type of Dementia	Generally expected course and signs/symptoms
Alzheimer's disease	Slow, progressive decline, typically in this order: memory, language, visuospatial function, executive function (exceptions and variants exist)
Lewy Body Disease (LBD) Most commonly dementia with Lewy bodies and Parkinson Disease Dementia (PDD)	Slow, progressive decline but with fluctuations in cognition reminiscent of delirium. Memory deficits, visuospatial dysfunction, and motor symptoms precede cognitive impairment in PDD, but are concurrent with or follow cognitive impairment in LBD. Sensitivity to side effects of antipsychotics.
Vascular dementia	Classically, a stepwise cognitive decline (but not always detectable clinically). Affected cognitive domains depend on location of vascular lesions and may feature vague executive or attention deficits.
Frontotemporal dementia, behavioral variant	Relatively rapid decline, affecting younger patients (45-64 years old), with significant language deficits and executive dysfunction. Dysexecutive syndrome (personality changes, inappropriate or risky behavior) that is not explained better by primary psychiatric condition.

Biomarker Testing

- Consider referral to geriatrics or neurology for biomarker testing if:
  - Diagnosis is uncertain
  - Patient has mild dementia or MCI and is considering treatment with anti-amyloid monoclonal antibodies
- CSF testing is the only biomarker testing that is covered by most insurers
- Biomarker testing is not required for diagnosis of dementia or Alzheimer's disease and requires careful consideration

Non-Pharmacologic Strategies of Dementia Treatment

See full details on Cleveland Clinic website for *The Six Pillars of Brain Health (www.healthybrains.org)*

- Mediterranean diet
- Increase mental and physical exercise
- Avoid isolation and encourage social engagement
- Optimize management of vascular risk factors including diabetes, hypertension, and hyperlipidemia
- Ensure adequate quality and quantity of sleep
- Improve adherence to CPAP therapy for sleep apnea
- Encourage cessation of smoking, alcohol, and cannabis
- Use hearing aids and eyeglasses if indicated
- Consider anti-platelet therapy if coronary artery disease or stroke are present

Pharmacologic Strategies of Dementia Treatment

- **Treatment approach:** Cholinesterase inhibitors do not treat underlying cause of Alzheimer's disease or related dementia. However, most newly diagnosed dementia patients can be offered a trial of cholinesterase inhibitors for symptomatic treatment of cognition and short-term preservation of functioning.
- **Setting expectations:** It is important to set expectations for patients and family regarding the limitations and potential side-effects of treatment.
- **Evidence of benefits**: There is some evidence that these drugs may delay placement in a nursing home[5]. Consider this when discussing when to start medications to maximize benefit for the patient.

Cholinesterase inhibitors (donepezil, galantamine, and rivastigmine)

- **Duration of treatment:** If there is not a benefit apparent in 12 weeks, it is not likely to occur. There is no evidence of any benefit from treatment lasting longer than one year.[6]

Cholinesterase Inhibitors in Treatment of Dementia (click name of drug for prescribing information)

Drug	Indications	Dosing	Possible uses	Contraindications	Monitoring	Side effects
Donepezil	Alzheimer's: mild, moderate or severe	5 mg PO daily at bedtime for 4 wks; may increase to 10 mg daily after 4 wks	May benefit: • Vascular dementia • Lewy body dementia	• Do not use in MCI. No evidence of delaying progression to dementia • Do not use in frontotemporal dementia • Bradycardia or known cardiac conduction system disease including risk of QT prolongation • See package insert for others	• Cognitive function • Performance of ADLs and IDLs	Common: • Nausea • Vomiting • Diarrhea • Insomnia • Headaches • Dizziness • Orthostasis • Syncope • Muscle cramps • Nightmares • Bradycardia
Galantamine	Alzheimer's: mild or moderate	(contraindicated in severe renal disease) IR: 4 mg PO BID for 4 wks. May increase to 8 mg BID after 4 wks ER: 8 mg PO daily in morning; may increase to 16 mg daily after 4 wks				
Rivastigmine	Alzheimer's: mild or moderate Parkinson's: mild or moderate	1.5 mg PO BID for 2 wks; may increase to 3 mg BID after 2 wk				

Click drug names for prescribing information

NMDA receptor inhibitors (memantine)

NMDA inhibitors (like cholinesterase inhibitors) do not alter the progression of underlying disease.

NMDA Inhibitors in Treatment of Dementia

Drug	Indications	Dosing	Monitoring	Side effects
Memantine	• Alzheimer's: moderate to severe • Alternative or adjunct to cholinesterase inhibitors • Due to synergistic action, consider dual trial of NMDA inhibitors and cholinesterase inhibitors • Do not use in frontotemporal dementia	• 5 mg PO daily; Increase dose in 5 mg increments up to 20 mg/day; Interval between dose increases is one week. • If renal impairment target dose of 5 mg BID • Caution in patients with hepatic impairment.	• Cognitive function • Performance of ADLs and IDLs	Well tolerated: • Constipation • Dizziness • Headache • Delirium/ psychosis rare

Anti-amyloid Monoclonal Antibodies: lecanemab (Leqembi)

- **Treatment approach:** These biologics target amyloid beta in the brain to treat Alzheimer's Disease in patients with MCI or mild dementia. See prescribing information.
- **Setting expectations:** The anti-amyloid monoclonal antibodies require frequent infusions, several brain MRIs, have a high rate of complications and narrow inclusion criteria. Shared decision making is crucial when deciding to use them. See a Shared Decision-making guideline (English) /(Spanish)
- **Criteria :** If patient and family decide to proceed and inclusion criteria outlined in the Intermountain Clinical Guideline: Leqembi (lecanemab-irmb) are met, refer to geriatrics or neurology for administration and management of medication.

Behavioral and Psychological Symptom Management

- Assess and track changes in behaviors and psychological symptoms using a standardized tool. E.g. BEHAV5+ at the Alzheimer's Association or Intermountain clinical form version.

Symptoms include:

- Agitation
- Aggression
- Sleep disturbances
- Anxiety
- Depression
- Apathy
- Delusions / hallucinations
- Wandering
- Resistance to care

Non-pharmacological Strategies for Symptom Management

Educate caregivers on basic strategies and recommend resources

- **Information on nature of disease:**

  Educate caregiver regarding the nature of the disease and help them adjust expectations. See Alzheimer's Association Support for Caregivers.

- **The importance of routine:**

  Recommend caregivers maintain a routine (including wakefulness during the day, and sleep at night) and modify the environment to limit overstimulation. See Daily Care Plan.

- **Changes in Communication:**

  Educate that redirection and simple statements of fact may help prevent irritability and resistance to care. Avoid asking for opinions, giving multiple choices, or arguing over a point of delusion or incorrect recollections. See Communication and Alzheimer's.

- **Recommended readings or websites for independent caregiver training:**
  - UCLA Caregiver Training Videos
  - Alzheimer's Association: Caregiving
  - Rabins PV and Mace NL. *The 36-hour day: A family Guide to Caring for People who have Alzheimer's Disease, Other Dementias, and Memory Loss.* 7th edition; Baltimore, Maryland; Johns Hopkins University Press; 2021

Pharmacologic Strategies for Symptom Management of Dementia

Symptom	Drugs	Notes
Depression, Anxiety, and Agitation	Begin with low-dose SSRI • Escitalopram • Citalopram • Sertraline	• Start with lowest dose • List was chosen based on low side-effect profiles • Check sodium level at baseline and then 2–3 weeks after initiation
Insomnia	• Melatonin (5 mg) at night • Trazodone (50 mg) at night	• Start low, titrate up slowly
Behaviors causing significant mental or physical harm to self or others	• Risperidone • Citalopram • Sertraline	• Discuss increased risk of mortality due to falls and cardiac events (FDA black box warning) with atypical antipsychotics; Increased sedation is a primary side-effect • Avoid benzodiazepines due to risk of tolerance, falls, and potential paradoxical increase in agitation[7,8] • Consider referral to geriatrics for behavioral and psychological symptoms management

Support for Caregivers

General Resources	• Refer to case management/social worker to connect patient with local community resources. • Refer to the Area Agency on Aging for your county, these have government-funded Caregiver Support Programs that can offer information on support groups, caregiver training courses, respite care grants, resources to complement in-home care, and more. Find your local Area Agency on Aging at Eldercare Locator: Administration for Community Living • Alzheimer's Association Help and Support and The National Institute on Aging (NIA) provides several educational and support resources for patients and caregivers of those with dementia.	
Driving Safety	• Many occupational therapy departments do in-person driving evaluations for patients to assess their ability to continue driving safely. Consider contacting the OT department for your hospital and find out about what they offer in this regard. • The Hartford Center for Mature Market Excellence and MIT Agelab have created *At The Crossroads: Family conversations About Alzheimer's Disease, Dementia and Driving* an evidence-based toolkit for families to help ease dementia patients from driver to passenger. You can find more resources at the Hartford: Dementia and Driving Website.	
Firearm Safety	• The Alzheimer's Association provides guidance in reducing firearm risks in dementia patients. See Firearm Safety document.	
Medication Safety	• The National Institute on Aging (NIA) has created a medication worksheet to help patients and their caregivers track all medication that the patient is taking. See the website for more tools.	
Financial Safety	Legal and financial planning	• *Managing Money Problems for People with Dementia* (NIA resource).
	Educate patient surrounding insurance benefits	• Home health: requires a skilled need such as physical therapy, wound care etc. • Hospice: comorbidities, weight loss, or be at stage 7 of FAST scale.
Advance Care Planning	Advance care directive forms	• Intermountain Advanced Care Website
	POLST programs	• Find the POLST Programs in your state

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Bibliography

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CPM Responsibility Matrix

Content and Updates	Measurement	Implementation and Adherence
Responsible: Neurosciences Clinical Program **Accountable:** Neurosciences Clinical Program **Consulted:** • Primary care • Geriatrics • Neurology • Pharmacy **Informed:** Chief Clinical Programs Officer	**Responsible:** Neurosciences Clinical Program **Informed:** Chief Clinical Programs Officer	**Responsible:** Neurosciences Clinical Program **Informed:** Chief Clinical Programs Officer

This CPM presents a model of best care based on the best available scientific evidence at the time of publication. It is not a prescription for every physician or every patient, nor does it replace clinical judgment. All statements, protocols, and recommendations herein are viewed as transitory and iterative. Although physicians are encouraged to follow the CPM to help focus on and measure quality, deviations are a means for discovering improvements in patient care and expanding the knowledge base. Send feedback to: April Gundersen, Neurosciences Clinical Program Manager; april.gundersen@imail.org

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