provider tools for identifying and managing cognitive impairment
Physicians have cited many barriers to diagnosing dementia, including doubts about the value of diagnosis given limited treatment options, concern over risk of misdiagnosis, and lack of knowledge of local dementia support services. However, based on published data, perceptions that disclosure of dementia diagnosis is not preferred or causes psychological distress among individuals and family members should be challenged.

A majority of patients want to know if they have Alzheimer’s Disease (AD)

A recent 5-country survey examining public attitudes about AD found that more than 80% of all adults (N=2,678) and 89% of US adults (N=639) responded that if they had memory or confusion symptoms, they would go to a doctor to determine if the cause was AD. This US finding is consistent with previously published reports over the last 2 decades.

Diagnosis does not cause psychological stress in most patients and their families

Physician conjecture that a dementia diagnosis may lead to depression or even suicide has been reported. Empirical findings on the issue are primarily limited to retrospective or review studies in populations with comorbid depression, a well-known risk factor for suicide. To examine psychological stress, Carpenter and colleagues evaluated 90 individuals and their companions before a dementia evaluation and after dementia disclosure using the Geriatric Depression Scale (GDS) and the State-Trait Anxiety Inventory (STAI). No clinically significant changes were noted in depressive symptoms in either the persons diagnosed with dementia or their companion (Figure 1). Anxiety decreased or remained unchanged after diagnostic feedback for most groups (Figure 2).

Most family members appreciate the benefits of diagnosis

Connell and colleagues surveyed 178 adults who had a family member with AD.

- More than 75% of family members rated the following benefits of diagnosis as being very or extremely important: 1) let family know what was wrong with relative; 2) allowed family to get information about AD; and 3) allowed family to plan for the future.
- Only 6% of all respondents strongly agreed that “it is easier to not know what the diagnosis is.”

In gaining knowledge and developing a treatment plan, individuals may realize that they can take an active role in managing the illness, enhancing a sense of self-efficacy where before they might have felt helpless.
Neuropsychological evaluation is typically most helpful for differential diagnosis, determining nature and severity of cognitive functioning, and the development of an appropriate treatment plan. Testing is typically maximally beneficial in the following score ranges:

- **SLUMS**: 18–27
- **MoCA**: 19–27
- **Kokmen STMS**: 19–33
- **MMSE/MMSE-2**: 18–28

### Annual Exam

**Mini Screen**

- **Normal**
  - Follow up in 1 year

**Tools**

- **Mini-Cog or GPCOG AND Family Questionnaire (if family available)**

**IF**

- **Mini-Cog < 4 or GPCOG < 9 OR Family Questionnaire > 2**

### Cognitive Assessment

**Same day or new visit**

- **Normal**
  - Follow up in 1 year

**Tools**

- One of the following: **SLUMS**, **MoCA**, **Kokmen STMS**, **MMSE-2** or **MMSE AND Family Questionnaire**

**IF**

- **Score falls outside of normal range**

- **Normal Range:**
  - **SLUMS**: 27–30 (HS education)
  - **MoCA**: 26–30 (HS education)
  - **Kokmen STMS**: 29–30
  - **MMSE/MMSE-2**: 27–30

- **Family Questionnaire < 3**

### Option 1

**Do complete dementia workup**

(see provider checklist)

### Option 2

**Refer to:** Champion in your practice, neurologist, neuropsychologist*

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*Neuropsychological evaluation is typically most helpful for differential diagnosis, determining nature and severity of cognitive functioning, and the development of an appropriate treatment plan. Testing is typically maximally beneficial in the following score ranges:

- **SLUMS**: 18–27
- **MoCA**: 19–27
- **Kokmen STMS**: 19–33
- **MMSE/MMSE-2**: 18–28
Follow these diagnostic guidelines in response to patient failure on cognitive screening (e.g., Mini-Cog) or other signs of possible cognitive impairment.

**History and Physical**
- Review onset, course, and nature of memory and cognitive deficits (Alzheimer’s Association Family Questionnaire may assist) and any associated behavioral, medical or psychosocial issues
- Assess ADLs and IADLs, including driving and possible medication and financial mismanagement
- Conduct structured mental status exam (e.g., MoCA, SLUMS, MMSE)
- Assess mental health (consider depression, anxiety, chemical dependency)
- Perform neurological exam focusing on focal/lateralizing signs, vision, including visual fields, and extraocular movements, hearing, speech, gait, coordination, and evidence of involuntary or impaired movements

**Diagnostics**

1. **Routine lab tests**
   - CBC, lytes, BUN, Cr, Ca, LFTs, Glucose
   - Dementia screening labs
     - TSH, B12
   - Contingent labs (per patient history)
     - R.PR, or MHA-TP, HIV, heavy metals

2. **Neuroimaging**
   - CT or MRI when clinically indicated

3. **Neuropsychological testing**
   - Indicated in cases of early or mild symptom presentation, for differential diagnosis, determination of nature and severity of cognitive functioning, and/or development of appropriate treatment plan
   - Typically maximally beneficial in the following score ranges: MoCA 19-27; SLUMS 18-27; MMSE 18-28

**Diagnosis**

**Mild Cognitive Impairment**
- Mild deficit in one cognitive function: memory, executive, visuospatial, language, attention
- Intact ADLs and IADLs; does not meet criteria for dementia

**Alzheimer’s disease**
- Most common type of dementia (60–80% of cases)
- Memory loss, confusion, disorientation, dysnomia, impaired judgment/behavior, apathy/depression

**Dementia with Lewy Bodies/Parkinson’s dementia**
- Second most common type of dementia (up to 30% of cases)
- Hallmark symptoms include visual hallucinations, REM sleep disorder, parkinsonism, and significant fluctuations in cognition

**Frontotemporal dementia**
- Third most common type of dementia primarily affecting individuals in their 50s and 60s
- EITHER marked changes in behavior/personality OR language variant (difficulty with speech production or loss of word meaning)

**Vascular dementia**
- Relatively rare in pure form (6-10% of cases)
- Symptoms often overlap with those of AD; frequently there is relative sparing of recognition memory

**Family Meeting**
- Include family care partners
- Review intervention checklist for Alzheimer’s disease and related dementias
- Refer to Alzheimer’s Association (800.272.3900/alz.org/mnnd) or Senior LinkAge Line (800.333.2433/minnesotahelp.info)
# intervention checklist
for alzheimer’s disease and related dementias

## Diagnostic Uncertainty & Behavior Management
- Refer to specialist as needed
  - [ ] Neurologist (dementia focus, if possible)
  - [ ] Geriatric Psychiatrist
  - [ ] Geriatrician
  - [ ] Memory Disorders Clinic

## Counseling, Education, Support & Planning
- Link to community resources
  - [ ] Alzheimer’s Association
    - 24/7 Helpline: 800.272.3900
    - alz.org/mnnd
  - [ ] Senior LinkAge Line®
    - 800.333.2433
    - MinnesotaHelp.info®
  - [ ] Provide Taking Action Workbook¹

## Stimulation/Activity/Maximizing Function
- Daily mental, physical, & social activity
  - [ ] Provide Living Well Workbook²
    (for concrete recommendations)
  - [ ] Adult day services
  - Sensory aids (hearing aids, pocket talker, glasses, etc.)

## Safety
- Driving
  - [ ] Counsel on risks; “At the Crossroads” publication³; refer for driving test or report to DMV as indicated

## Medication Management
- [ ] Family oversight or public health nurse/home care

## Advanced Care Planning
- Complete advanced care plan
  - [ ] Refer to advanced care planning facilitator within system
  - [ ] Encourage completion of healthcare directive forms⁴–⁶

## Medications
- Memory
  - [ ] Donepezil, rivastigmine patch and galantamine
  - [ ] Memantine (mid-late stage)

- Mood & Behavior
  - [ ] SSRIs or SNRIs

## Financial/Legal
- Encourage patient to assign DPOA; elder law attorney as needed
  - Note: Individuals with dementia are vulnerable adults and may be at a higher risk for elder abuse.

## Avoid/Minimize
- Anticholinergics, hypnotics and narcotics
- Antipsychotics (not to be used in Lewy Body dementia)
Structured Mental Status Exam

1. Montreal Cognitive Assessment (MoCA)
   - Public domain: www.mocatest.org/
   - Sensitivity: 90% for MCI, 100% for dementia
   - Specificity: 87%

2. St. Louis University Mental Status (SLUMS)
   - Public domain: http://medschool.slu.edu/agingsuccessfully/pdfsurveys/slumsexam_05.pdf
   - Sensitivity: 92% for MCI, 100% for dementia
   - Specificity: 81%

3. Mini-Mental Status Exam (MMSE)
   - Copyrighted: www4.parinc.com/Products/Product.aspx?ProductID=MMSE
   - Sensitivity: 18% for MCI, 78% for dementia
   - Specificity: 100%
   
   Note: This instrument is not a preferred tool in memory loss assessment. Accumulating evidence shows it is significantly less sensitive than both the MoCA and SLUMS in identifying MCI and early dementia.

Intervention Checklist

1. Taking Action Workbook
   www.alz.org/mnnd/resources

2. Living Well Workbook
   www.alz.org/mnnd/resources

3. At the Crossroads: Family conversations about Alzheimer’s disease, dementia & driving
   www.thehartford.com/alzheimers


5. Five Wishes
   www.agingwithdignity.org/forms/5wishes.pdf

6. Honoring Choices Minnesota
   www.honoringchoices.org

Increasing Disclosure Of Dementia Diagnosis:

9. Harvard School of Public Health. Increasing Disclosure Of Dementia Diagnosis:

References

Provider Checklist:


Increasing Disclosure Of Dementia Diagnosis:

9. Harvard School of Public Health. Increasing Disclosure Of Dementia Diagnosis: