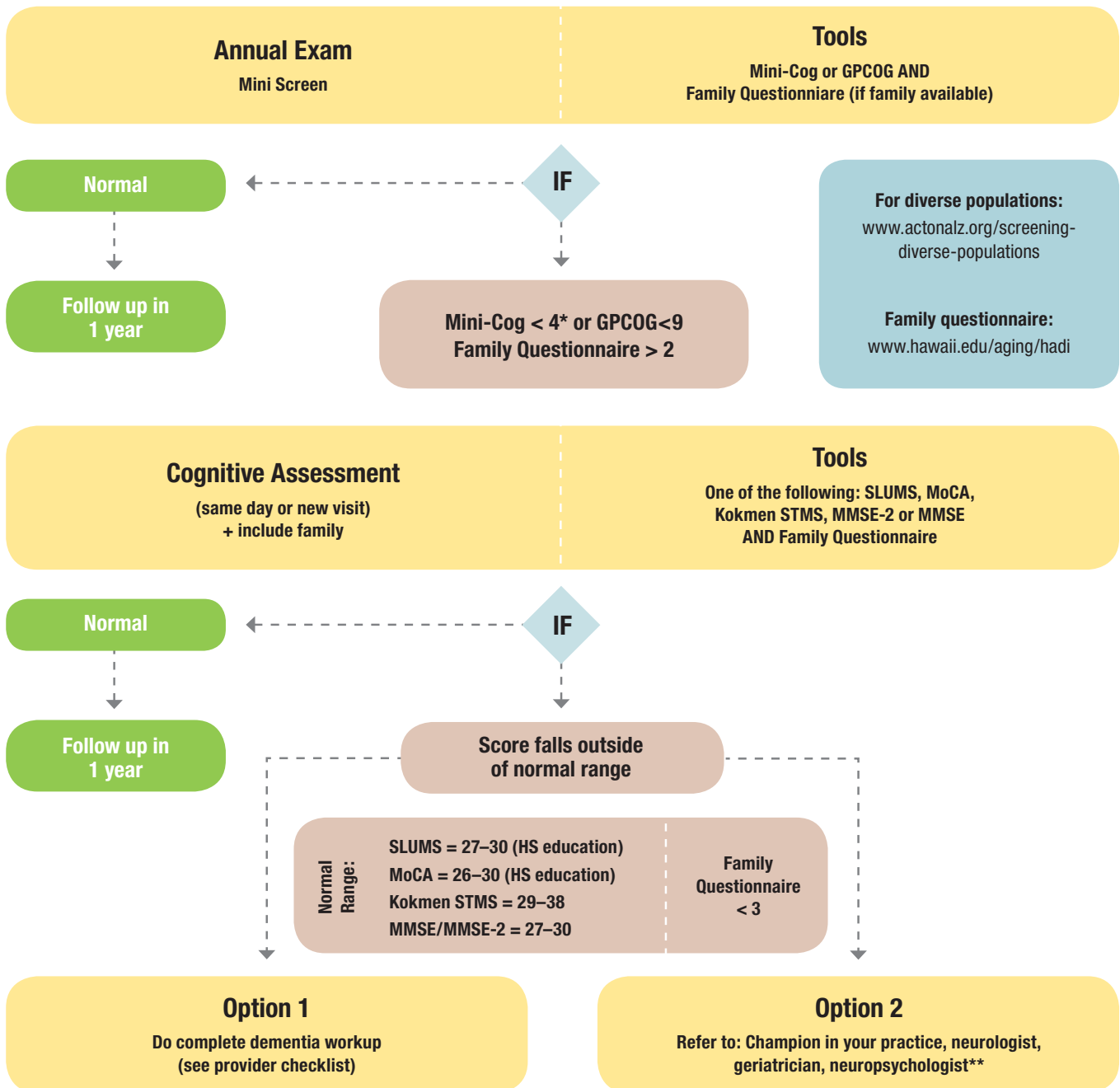


Cognitive Impairment Identification



*A cut point of <3 on the Mini-Cog has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

**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

Dementia Work-Up

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

- Person-centered care includes understanding cultural context in which people are living (www.hawaii.edu/aging/hadi)
- 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
- Include family members, friends, or other care partners, if available
- Assess ADLs and IADLs, including driving and possible medication and financial mismanagement (Functional Activities Questionnaire and/or OT evaluation may assist)
- 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

Lab Tests

- Routine: CBC, lytes, BUN, Cr, Ca, LFTs, glucose
- Dementia screening labs: TSH, B12
- Contingent labs (per patient history): RPR or MHA-TP, HIV, heavy metals

Neuroimaging

- CT or MRI when clinically indicated

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; Kokmen STMS 19-33

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

* The latest DSM-5 manual uses the term "Major Neurocognitive Disorder" for dementia and "Mild Neurocognitive Disorder" for mild cognitive impairment. This ACT on Alzheimer's resource uses the more familiar terminology, as the new terms have yet to be universally adopted.

Follow-Up Diagnostic Visit

- Include family members, friends, or other care partners
- Review intervention checklist for Alzheimer's disease and related dementias
- Refer to Alzheimer's Association – Aloha Chapter 24/7 Helpline at 1-800-272-3900 or www.alz.org/hawaii/
- Hawaii ADRC (Aging & Disability Resource Center) statewide at 643-ADRC (2372). TTY line: 643-0889. Go to www.hawaiiadrc.org and click on "Professionals & Service Providers"

Dementia Management

Diagnostic Uncertainty & Behavior Management

Refer to Specialist as Needed

- Neurologist (dementia focus, if possible)
- Geriatric Psychiatrist
- Geriatrician
- Memory Disorders Clinic

Counseling, Education, Support & Planning

Family Meeting

- Refer to social worker, case manager, or care coordinator

Link to Community Resources

- Contact the Alzheimer's Association – Aloha Chapter 24/7 Helpline at 1-800-272-3900 or www.alz.org/hawaii^{1,2,3}
- Contact Hawaii ADRC (Aging & Disability Resource Center) statewide at 643-ADRC (2372). TTY line: 643-0889
Go to www.hawaiiadrc.org and click on “Professionals & Service Providers”
- Screening diverse populations⁴
- Life After Diagnosis⁵
- Taking Action Workbook⁶

Stimulation / Activity / Maximizing Function

Daily Mental, Physical and Social Activity

- Living Well Workbook⁷ (includes nonpharm therapies for early to mid stage)
- Adult day services (mid to late stage)
- Sensory aids (hearing aids, pocket talker, glasses, etc.)
- NIH's Caring for a Person with Alzheimer's Disease: Your Easy-to-Use Guide⁸

Advance Care Planning

Complete Advance Care Plan

- Refer to advance care planning facilitator within system, if available
- Encourage completion of advance health care directive and POLST forms^{9,10}
- Refer to Your Conversation Starter Kit for Families and Loved Ones of People with Alzheimer's Disease or Other Forms of Dementia²²

Medications

- Memory: Donepezil, rivastigmine patch, galantamine and memantine (mid-late stage)
- Mood & Behavior: SSRIs or SNRIs
- Avoid/Minimize: Anticholinergics, hypnotics, narcotics, and antipsychotics (not to be used in Lewy Body dementia)

Culturally Competent Resources

- Refer to www.hawaii.edu/aging/coa-projects-all/hadi-project/hadi-resources/

Safety

Note: Individuals with dementia are vulnerable adults and may be at a higher risk for elder abuse and exploitation.

Driving

- Counsel on risks
- Refer to driving rehab specialist/occupational therapist for clinical and/or in-vehicle evaluation
- Understanding Dementia and Driving¹¹
- Family Conversations about Alzheimer's Disease, Dementia & Driving¹²
- At the Crossroads Guidebook¹³
- Dementia and Driving Resource Center¹⁴
- Fitness to Drive Screening Tool¹⁵

Medication Management

- Family oversight or health care professional

Financial / Legal

- Encourage patient to assign durable power of attorney^{10,16}
- Refer to elder law attorney as needed^{10,17,18}

Falls Prevention and Wandering

- Provide information on Falls Prevention resources¹⁹
- Refer to Alzheimer's Association Medic Alert® and Safe Return® programs²⁰

Preventing Elder Abuse & Neglect

- Monitor for Elder Fraud, Abuse and Neglect
- If suspected, contact Adult Protective Services²¹

Dementia Management Resources

1. **Alzheimer's and Dementia Caregiver Center**
www.alz.org/care/
2. **Alzheimer's Association Pocketcard App "Mobilize your dementia patient care"**
www.alz.org/health-care-professionals/physicians-app.asp
3. **TrialMatch®**
www.alz.org/trialmatch
4. **Screening diverse populations**
www.actonalz.org/screening-diverse-populations
5. **Life After Diagnosis**
www.alz.org/alzheimers_disease_life_after_diagnosis.asp
6. **Taking Action Workbook**
www.actonalz.org/pdf/Taking-Action.pdf
7. **Living Well Workbook**
www.actonalz.org/pdf/Living-Well.pdf
8. **NIH Caring for a Person with Alzheimer's Disease**
www.nia.nih.gov/alzheimers/publication/caring-person-alzheimers-disease/about-guide
9. **Kokua Mau: Hawaii Hospice & Palliative Care Organization**
www.kokuamau.org
10. **UH Elder Law Program Health Care Decision Making**
www.hawaii.edu/uhelp/healthcare.htm
11. **Understanding Dementia and Driving**
www.thehartford.com/mature-market-excellence/dementia-driving
12. **Family Conversations about Alzheimer's Disease, Dementia & Driving**
www.thehartford.com/alzheimers
13. **At the Crossroads Guidebook**
www.thehartford.com/mature-market-excellence/order-guidebooks
14. **Dementia and Driving Resource Center**
www.alz.org/care/alzheimers-dementia-and-driving.asp
15. **Fitness to Drive Screening Tool**
www.aarp.org/home-family/getting-around/driving-resource-center/info-08-2013/fitness-to-drive-screening-tool.html

16. **“Deciding What’s Next and Who in the World Cares?” Booklet**
www.hawaii.edu/uhelp/publications.htm
17. **Hawaii State Bar Association Lawyer Information & Referral Service**
http://hawaiilawyerreferral.com
18. **Legal Aid Society of Hawaii**
www.legalaidhawaii.org
19. **Preventing Falls Among Older Adults**
http://health.hawaii.gov/injuryprevention/home/preventing-falls/information/

20. **Medic Alert® and Alzheimer’s Association Safe Return®**
www.alz.org/care/dementia-medic-alert-safe-return.asp
21. **Adult Protective Services**
http://humanservices.hawaii.gov/ssd/home/adult-services/
22. **Your Conversation Starter Kit for Families and Loved Ones of People with Alzheimer’s Disease or Other Forms of Dementia**
http://theconversationproject.org/starter-kit/intro

Tools

Mini-Cog

- Public domain: www.hawaii.edu/aging/hadi
- Sensitivity for dementia: 76-99%
- Specificity: 89-93%

Montreal Cognitive Assessment (MoCA)

- Public domain: www.mocatest.org
- Sensitivity: 90% for MCI, 100% for dementia
- Specificity: 87%

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%

Measure/Assess IADLs

- http://consultgeri.org/try-this/dementia/issue-d13.pdf

Family Questionnaire

- www.hawaii.edu/aging/coa-projects-all/hadi-project/

Mini-Mental Status Exam (MMSE)

- Copyrighted: www4.parinc.com/Products/Product.aspx?ProductID=MMSE
- Sensitivity: 18% for MCI, 78% for dementia
- Specificity: 100%

Note: The MMSE 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.

General Practitioner Assessment of Cognition (GPCOG)

- http://gpcog.com.au

Kokmen STMS

- http://www.ouhsc.edu/age/Brief_Cog_Screen/documents/STMS.pdf

References: Provider Checklist

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Mild Cognitive Impairment and Stages of Alzheimer's: Symptoms and Duration of Disease

Alzheimer's symptoms vary. The information below provides a general idea of how abilities change during the course of the disease. Not everyone will experience the same symptoms nor progress at the same rate. Find additional information on the stages of Alzheimer's at: www.alz.org/alzheimers_disease_stages_of_alzheimers.asp

Mild Cognitive Impairment (MCI)

www.mayoclinic.com/health/mild-cognitive-impairment/DS00553

- Mild forgetfulness
- Increasingly overwhelmed by making decisions, planning steps to accomplish a task or interpreting instructions
- Mild difficulty finding way in unfamiliar environments
- Mild impulsivity and/or difficulty with judgment
- Family and friends notice some or all of these symptoms
- IADLs only mildly compromised; ADLs are intact

Alzheimer's Disease Early Stage 2-4 years in duration

- Increased short-term memory loss
- Difficulty keeping track of appointments
- Trouble with time/sequence relationships
- More mental energy needed to process information
- Trouble multi-tasking
- May write reminders, but lose them
- Mild mood and/or personality changes
- Increased preference for familiar things
- IADLs more clearly impaired; ADLs slightly impaired

Alzheimer's Disease Middle Stage 2-10 years in duration

- Significant short-term memory loss; long-term memory begins to decline
- Fluctuating disorientation
- Diminished insight
- Changes in appearance
- Learning new things becomes very difficult
- Restricted interest in activities
- Declining recognition of acquaintances, relatives
- Mood and behavioral changes
- Alterations in sleep and appetite
- Wandering
- Loss of bladder control
- IADLs and ADLs broadly impaired

Alzheimer's Disease Late Stage 1-3 years in duration

- Severe disorientation to time and place
- No short-term memory
- Long-term memory fragments
- Loss of speech
- Difficulty walking
- Loss of bladder/bowel control
- No longer recognizes family members
- Inability to survive without total care



Adapted from ACT on Alzheimer's® developed tools and resources. ACT on Alzheimer's® provider practice tools and resources cannot be sold in their original or modified/adapted form.

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