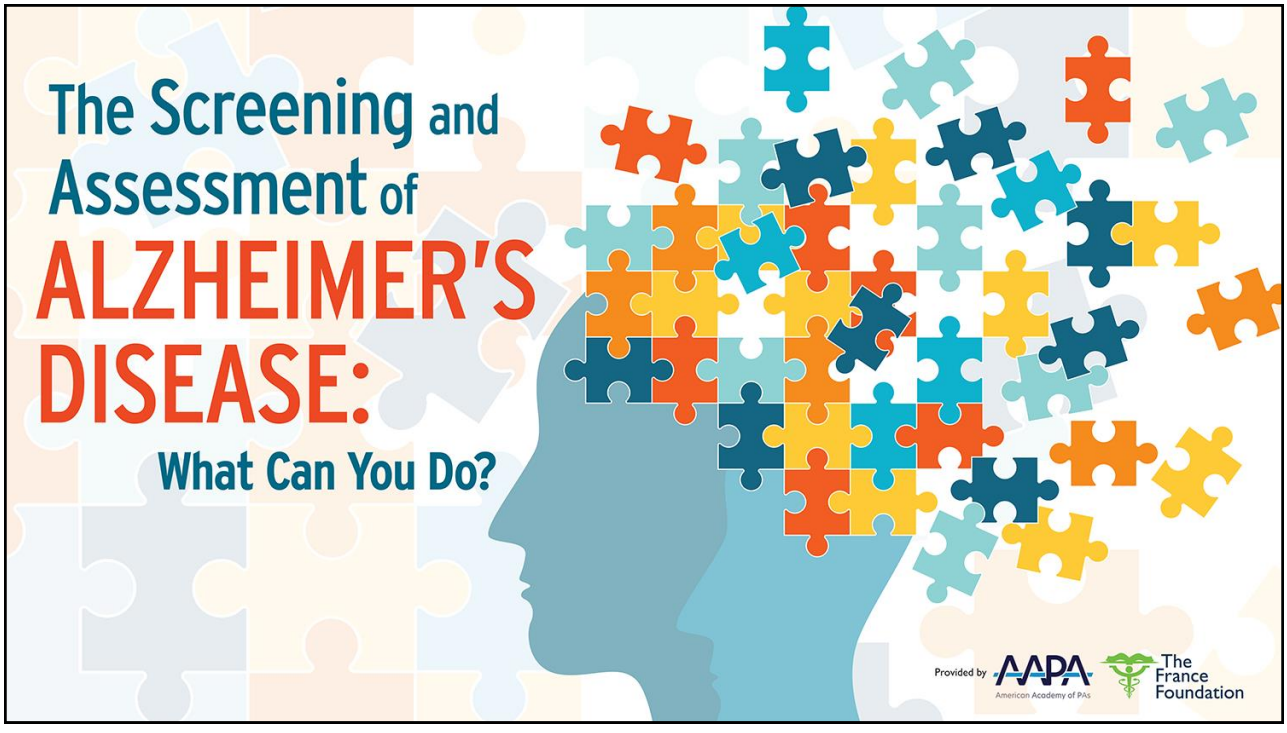
The Screening and Assessment of
ALZHEIMER'S DISEASE:
What Can You Do?
Provided by
AAPA
American Academy of PAs
The France Foundation

1

Provided by the
American Academy of PAs
in collaboration with The France Foundation

Supported by an educational grant from Genentech

2

Steering Committee

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3

Disclosures

Activity Staff Disclosures

- The planners, reviewers, editors, staff, CME committee, or other members at the AAPA and TFF who control content have no relevant financial relationships to disclose

Faculty/Steering Committee

- Freddi Segal-Gidan, PA, PhD – Editorial board for Eisai Inc.
- Theresa Sivers-Teixeira, MSPA, PA-C - no relevant financial relationships to disclose

4

Learning Objectives

- Explain the need for early diagnosis of Alzheimer's disease (AD)
- Describe the role of primary care PAs in the detection of AD and become familiar with clinical protocols to screen and assess for cognitive impairment
- Identify the components of a coordinated primary care team optimized for timely screening and diagnosis of AD and appropriate referrals to specialists

5

Case Introduction: Elaine

- 75-year-old African American woman who suffered an ischemic stroke 3 years ago with no residual deficits. She has been your patient for 10 years.
- Past medical history:
  - Hypertension (lisinopril + HCTZ)
  - Type 2 diabetes (metformin)
  - BMI of 18
- Her daughters say she repeats herself, forgets recent conversations, and the patient has noticed she sometimes has trouble finding the right word
- She has a masters degree in English and worked as a fundraiser for a regional charity until her retirement 10 years ago

6

Pretest Question 1

What percent of patients, like Elaine, with early signs of cognitive impairment go undetected in a primary care practice?

A. 10%
B. 25%
C. 50%
D. 70%

7

Case Continuation

- You take additional history, learn that she has stopped going to the senior center, missed a recent book group meeting, and her daughter says the pharmacy had to call twice to remind her to pick up her medication refills
- On review of current medications, you learn that Elaine has been having trouble sleeping at night and she has been taking diphenhydramine (25 mg) up to 2-4 tablets nightly for the past 6 months

8

Pretest Question 2

Based on the history what would be on your differential for possible underlying cause of Elaine's change in cognitive function?

A. Alzheimer's disease/vascular dementia, malnutrition, medication toxicity, and urinary tract infection
B. Alzheimer's disease/vascular dementia, malnutrition, vascular ischemia/stroke, and urinary tract infection
C. Alzheimer's disease/vascular dementia, medication toxicity, vascular ischemia/stroke, and urinary tract infection
D. Malnutrition, medication toxicity, vascular ischemia/stroke, and urinary tract infection
E. Alzheimer's disease/vascular dementia, malnutrition, medication toxicity, and vascular ischemia/stroke

9

Case Continuation

- Elaine's physical examination was normal
- Cognitive screening
  - MoCA 25/30
  - GDS 3/15
- Your work-up for Elaine included CBC, Chem 10, TSH, B12, and UA, which show no abnormalities
  - A1C = 5.7
- MRI shows evidence of prior lacunar infarct, increased generalized atrophy from prior scan, most prominent in the temporal-parietal regions

10

Pretest Question 3

Based on the pertinent positives from Elaine's work-up:

- Change in function and daily routines
- PMH Stroke, HTN, T2DM,
- BMI 18
- Sleep difficulties
- MoCA 25/30
- MRI findings of past lacunar infarct & generalized atrophy

At this point, which team member is the **best** option for consultation or referral?

A. Psychologist/Social Worker
B. Sleep specialist
C. Geneticist
D. Neurologist
E. Pharmacist

11

The Need for Early Diagnosis of AD

12

Why is this topic important?

- Alzheimer's Disease (AD) is the most common cause of dementia
- Less common causes
  - Vascular dementia
  - Lewy-body dementia
  - Frontotemporal dementia
  - Mixed dementia
- 6th leading cause of death
- Low awareness of Mild Cognitive Impairment (MCI) and its relationship to AD or other dementias
- Lack of confidence in PCP ability to detect MCI and diagnose dementias
- Paradigm shift with new research

Alzheimer's Association. 2023 Alzheimer's Disease Facts and Figures. Alzheimers Dement 2023;19(4). DOI 10.1002/alz.13016

Many Reasons for Cognitive Decline

- Illness/infection (delirium)
- Dehydration
- Malnutrition
- Constipation/bowel impaction
- Vitamin deficiency (B12 for example)
- Sleep deprivation
- Pain
- Depression or anxiety
- Obstructive sleep apnea/inadequate sleep
- Hypoxia
- Hyper/hypothyroid
- Substance use (intoxication or chronic use)
- Medication side effects
- Sensory impairments
- TIA/CVA
- Head injury
- **Neurodegenerative disorders (progressive dementing illnesses)**

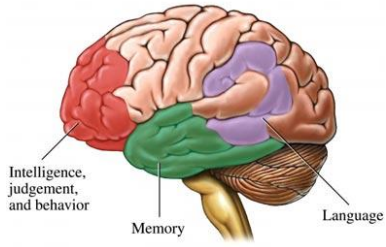
NIH|NIA Website: Assessing Cognitive Impairment in Older Patients
Assessing Cognitive Impairment in Older Patients | National Institute on Aging (nih.gov)

14

Definition of Dementia

A. Evidence of significant cognitive decline from a previous level of performance in one or more cognitive domains:

- Learning and memory
- Language
- Executive function
- Complex attention
- Perceptual-motor
- Social cognition



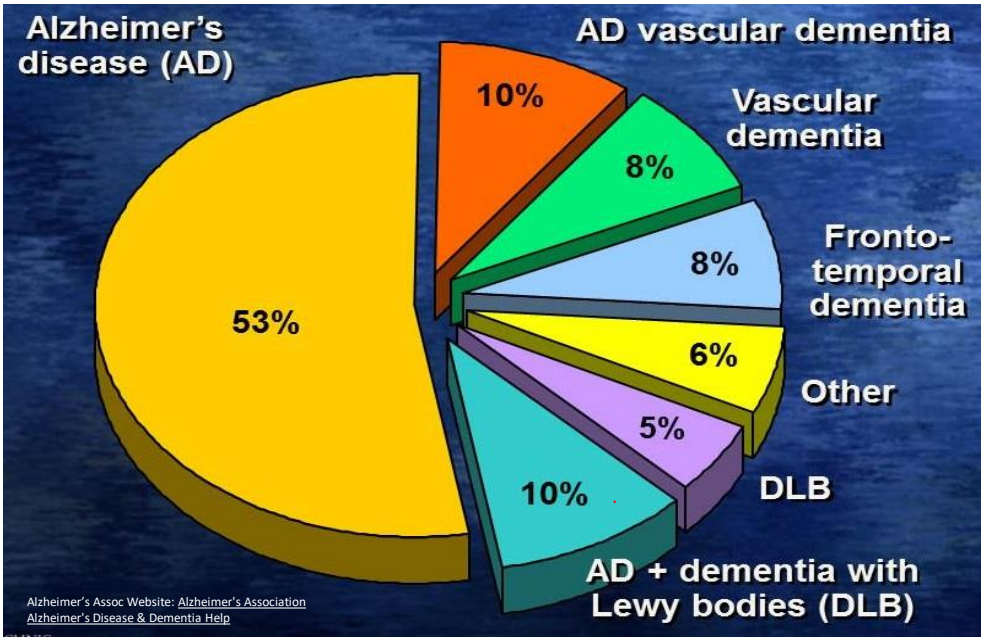
B. Cognitive deficits:

- Interfere with independence in everyday activities
- Do not occur exclusively in the context of delirium
- Not explained by another mental disorder (eg, major depressive disorder, schizophrenia)

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)

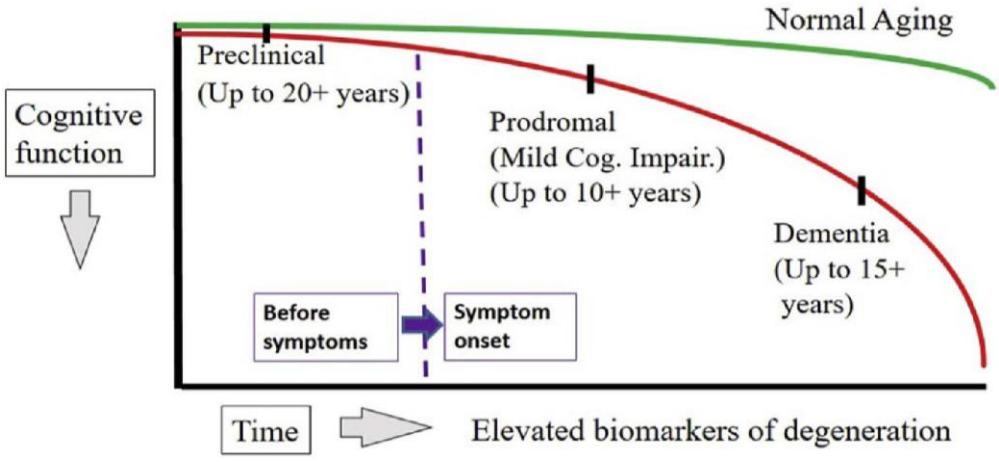
15

Dementia Is a Syndrome With Many Etiologies



16

The Continuum of Alzheimer's Disease



The American Journal of Medicine, Gale, Seth A. MD et al. Dementia, Vol 131(10),1161-1169. Feb 6, 2018. https://doi.org/10.1016/j.amjmed.2018.01.022

17

Alzheimer's Disease Risk Factors

Non-Modifiable:

- Age is #1 risk factor
- Gender
- Race
- Genetic factors
  - APOE4 Allele
  - Trisomy
- Cerebral amyloidosis

Modifiable:

- Cardiovascular Disease (DM, Cardio, HLD/Chol)
- Sleep disorder
- Hearing loss
- Depression
- Severe head injury
- BMI > 40 or < 18.5
- Lifestyle factors
  - Smoking
  - Excess EtOH
  - Lack of exercise/sedentary lifestyle
- Low socioeconomic resources/support
- Low education at a younger age
- Social isolation

Loeffler DA. Modifiable, Non-Modifiable, and Clinical Factors Associated with Progression of Alzheimer's Disease. *J Alzheimers Dis*. 2021;80(1):1-27. doi:10.3233/JAD-201182

18

Clinical Barriers to Early Diagnosis of AD

- Profound shortage of medical providers specializing in care of older adults
- Early AD symptoms are often minimized, undiagnosed, misattributed, or ignored
- PCPs lack clinical training for screening, detection, diagnosis, and management of AD in primary care
- No single universal symptom of AD at the earliest stages
- No biomarker or test can determine a clinical diagnosis of AD

2022 Alzheimer's disease facts and figures. *Alzheimer's Dement.*, 18: 700-789. https://doi.org/10.1002/alz.12638.
American Geriatrics Society. October 1, 2018. Accessed July 15, 2022. https://www.americangeriatrics.org/sites/default/files/inline-files/State%20of%20the%20Geriatrician%20Workforce_10%2001%2018.pdf

19

Benefit of Early Detection

- Identification of reversible or treatable conditions
- Provide explanation for current symptoms
- Time to implement care management strategies
- Advanced care planning
- Avoid future medical crises

- Pharmacologic therapy most effective in early dementia
- Participation in clinical trials
- Increased patient and caregiver burden with delay

Alzheimer's Association "2023 Alzheimer's Facts and Figures Report: At a Glance Statistics". Facts-And-Figures-2023-At-A-Glance-Stats-Fact-Sheet.pdf (alz.org)

Primary Care and Alzheimer's Disease

21

Primary Care PA Role

- Establish and monitor baseline of cognitive function
- Track risk factors for Alzheimer's disease and other dementias
- Continuity of care over time
  - Familiarity with patient = increased opportunity to observe clinical changes
- Optimization of chronic disease management
- Time well-spent
  - Evaluation can be done over multiple visits
  - Reimbursement by time
- Medical home
  - Team to collect information, support post-diagnosis

2022 Alzheimer's disease facts and figures. *Alzheimer's Dement*. 2022;18(4):700-789. doi:10.1002/alz.12638

22

Pay Attention: When to Be Concerned

- Patient reports memory/cognitive changes
- Family member or other always speaking for patient
- Family reports changes of:
  - Memory/cognition
  - Behavior
- Staff report concerns
  - Missed appointments
  - Failure to schedule testing or consults
  - Repeated calls
- Positive cognitive impairment screen
- Medication management issues
  - Excess refills (lost meds, running out early)
- Impaired decision-making capability
  - Cannot 'teach back' reasons for test/referral, changes in meds, etc.
- Chronic disease management
  - Change in level of control

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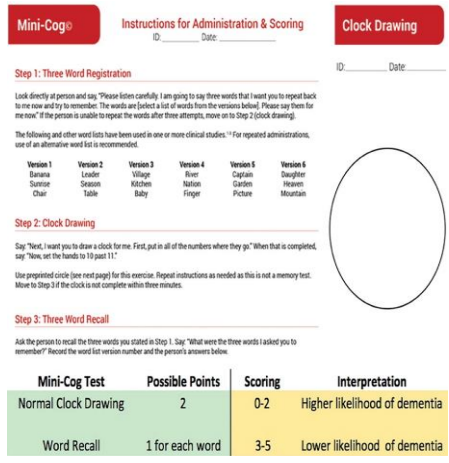
23

Why Screen for Cognitive Impairment?

- Impairment often missed by clinicians
- Identifies need for further workup
- Opportunity to treat reversible causes
- Can lead to earlier access to:
  - Appropriate medical care
  - Education
  - Patient and caregiver(s) support
  - Care planning



Mini-Cog©

Instructions for Administration & Scoring

ID:_____ Date:_____

Clock Drawing

ID:_____ Date:_____

Step 1: Three Word Registration

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now." If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies.[14] For repeated administrations, use of an alternative word list is recommended.

Version 1	Version 2	Version 3	Version 4	Version 5	Version 6
Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Mountain

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Mini-Cog Test	Possible Points	Scoring	Interpretation
Normal Clock Drawing	2	0-2	Higher likelihood of dementia
Word Recall	1 for each word	3-5	Lower likelihood of dementia

Example: The MiniCog is a simple, evidence-based tool that takes up to 3 minutes to administer

A positive score ≠ a diagnosis!

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Next Steps With a Positive Cognitive Screen

Problem-Focused Workup:

- History and physical
- Collateral history
- Mental Status Testing
- Diagnostics (identify reversible causes, rule out other etiologies)

25

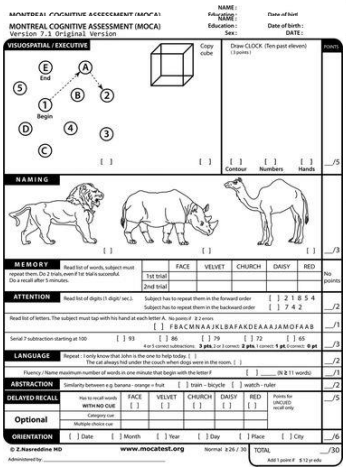
Problem-focused History and Physical

- Person-centered encounter with consideration of cultural context
- Onset and course of changes in memory and thinking
  - Patient interview
  - Reliable informant
- Functional assessment-ADLs and IADLs, driving, financial management
- Past medical history: Recent illness, hx of head trauma, vascular disease, CVA, MI, and comorbidities
- Comprehensive medication reconciliation
- Structured mental status exam: MoCA, SLUMS, and MMSE*
- Assess mental health: Consider depression, anxiety, and chemical dependency
- Neurological exam: Focus on focal signs, vision, hearing, speech, gait, coordination, and evidence of involuntary movements

ACT on Alzheimer's. Dr. Terry Barclay, Adjunct Associate Professor of Neurology, Health Partners Center for Memory and Aging, University of Minnesota. VIMEO: "Best Practices for Detection and Early Management of Dementia"

26

Mental Status Tool Examples


MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

NAME:
Education:
Sex:
Date of birth:
DATE:

VISUOSPATIAL / EXECUTIVE — Points

Draw CLOCK (Ten past eleven) (3 points)

Copy cube — Contour — Numbers — Hands — /5

NAMING — /3

MEMORY — Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes. — FACE, VELVET, CHURCH, DAISY, RED — 1st trial, 2nd trial — No points

ATTENTION — Read list of digits (1 digit/ sec.) — Subject has to repeat them in the forward order [ ] 2 1 8 5 4 — Subject has to repeat them in the backward order [ ] 7 4 2 — /2

Read list of letters. The subject must tap with his hand at each letter A. No point if 2 errors — [ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B — /1

Serial 7 subtraction starting at 100 — [ ] 93 — [ ] 86 — [ ] 79 — [ ] 72 — [ ] 65 — 4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt — /3

LANGUAGE — Repeat: I only know that John is the one to help today. [ ] — The cat always hid under the couch when dogs were in the room. [ ] — /2

Fluency / Name maximum number of words in one minute that begin with the letter F — [ ] ____ (N ≥ 11 words) — /1

ABSTRACTION — Similarity between e.g. banana – orange = fruit — [ ] train – bicycle [ ] watch – ruler — /2

DELAYED RECALL — Has to recall words WITH NO CUE — FACE [ ], VELVET [ ], CHURCH [ ], DAISY [ ], RED [ ] — Points for UNCUED recall only — /5

Optional — Category cue — Multiple choice cue

ORIENTATION — [ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City — /6

© Z.Nasreddine MD — www.mocatest.org — Normal ≥ 26 / 30 — TOTAL — /30

Administered by: _____ — Add 1 point if ≤ 12 yr edu

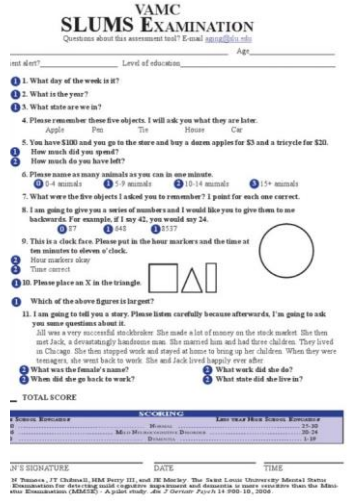
Mini-Mental State Examination (MMSE)

Patient's Name: _____ Date: _____

Instructions: ***Ask the questions in the order listed. Score one point for each correct response within each question or activity.***

Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day of the week? Month?"
5		"Where are we now: State? County? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then asks the patient to name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible. Number of trials: _____
5		"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Stop after five answers. Alternative: "Spell WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write a sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.)
30		TOTAL

(Adapted from Rovner & Folstein, 1987)


VAMC
SLUMS EXAMINATION
Questions about this assessment tool? E-mail

Age:
Level of education:

1. What day of the week is it?
2. What is the year?
3. What state are we in?
4. Please remember these five objects. I will ask you what they are later.
Apple Pen Tie House Car
5. You have $100 and you go to the store and buy a dozen apples for $3 and a tricycle for $20.
How much did you spend?
How much do you have left?
6. Please name as many animals as you can in one minute.
0-4 animals 5-9 animals 10-14 animals 15+ animals
7. What were the five objects I asked you to remember? 1 point for each one correct.
8. I am going to give you a series of numbers and I would like you to give them to me backwards. For example, if I say 42, you would say 24.
87 845 2537
9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.
Hour markers okay
Time correct
10. Please place an X in the triangle.
11. Which of the above figures is largest?
11. I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.
Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a devastatingly handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.
What was the female's name?
When did she go back to work?
What work did she do?
What state did she live in?

TOTAL SCORE

SCORING

M'S SIGNATURE DATE TIME

M Tangalos, JT Chibnall, MM Ferry III, and JE Morley. The Saint Louis University Mental Status Examination for detecting mild cognitive impairment and dementia is more sensitive than the Mini-ental State Examination (MMSE) - A pilot study. *Am J Geriatr Psych* 11 398-10, 2003

Montreal Cognitive Assessment (MOCA)

Mini-Mental Status Exam (MMSE)

Saint Louis University Mental Status Exam (SLUMS)

27

Screening and Mental Status Pearls

- Know your patient
  - Formal education/literacy-impacts scoring
  - Self-report
  - MANY issues complicate neurocognitive screening in non-English speakers
    - Testing by an experienced, fluent, and culturally consistent provider is best
- Know your tools
  - Practice, videos, and use standardized instructions and scoring guidelines
- Approach
  - Have a script for orienting patient to cognitive screen
    - "We regularly screen vitals as well as brain health…"
    - "So now we'll do the check up from the neck up" or "I'm going to ask you to do a few things for me that will require concentration."
  - *Do not* hint or guide patient
  - *Do not* give feedback on performance/outcome during administration

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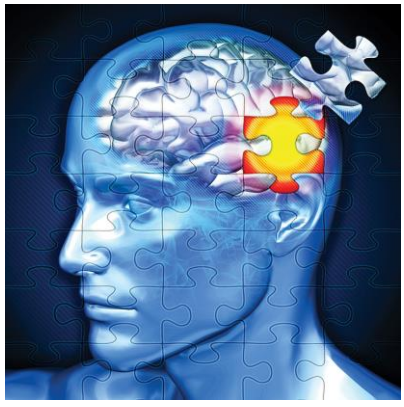
28

Mental Status Results Are Only One Part of the Equation

A positive score ≠ a diagnosis!



Other considerations:

- Patient self-reports
- Report from family/collateral
- Mood/anxiety measures
- Clinical history
- Onset
- Course
- Symptoms
- Labs
- Neuroimaging–MRI is the test of choice for AD

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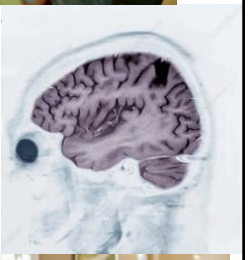
29

Diagnostics

- Labs[1]
  - Routine: CBC, CMP, TSH, B12, and UA
  - Per patient history: RPR, HIV, ESR, and CRP, heavy metals, and toxicology
- Neuroimaging[1]
  - MRI when clinically indicated; CT without contrast if no MRI available
- Emerging
  - CSF assay[2]
  - PET scan

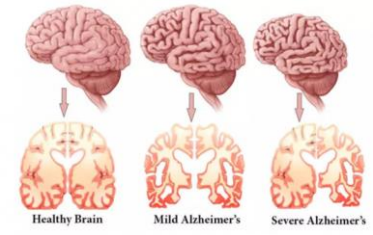


1 ACT on Alzheimer's Website, Clinical Provider Practice Tool – Dementia Workup: ACT-Provider-ClinicalPracticeTool.pdf (actonalz.org)
2 *CSF assay only ordered/performed by neurology team (to r/o brain infections, inflammatory conditions, or other diseases that may cause dementia AND to assess for beta-amyloid and Tau proteins*

Pattern of Cognitive Impairment: MCI

Mild Cognitive Impairment (MCI)

- Mild deficit in one cognitive function: memory, executive function, visuospatial, language, and attention
- Intact ADLs and IADLs
  - Does not meet criteria for dementia



* ACT on Alzheimer's Website, Clinical Provider Practice Tool – Dementia Workup, 2016: ACT-Provider-ClinicalPracticeTool.pdf (actonalz.org)

MCI: Care Plan Considerations

Develop care plan *with* patient and chosen care partner(s):

- Treat what is treatable; manage co-morbidities
- Consider cholinesterase inhibitor
- Promote healthy lifestyle (diet, exercise)
- Advanced directive discussion of patient preferences and priorities for future care
- Referral for support and education
- Reassess in 1 year or earlier if significant change in function

* ACT on Alzheimer's Website, Clinical Provider Practice Tool – Dementia Workup, 2016: ACT-Provider-ClinicalPracticeTool.pdf (actonalz.org)

Pattern of Cognitive Impairment: AD

- **Alzheimer's Disease**
  - Dementia–Cognitive decline in multiple domains
    - Memory loss, confusion, disorientation, dysnomia, impaired judgement/behavior, apathy, and depression
    - No unusual pattern of deficits
  - Typical timeline and presentation
  - No profound depression
  - No reversible causes identified
  - Work-up complete, PA feels comfortable making dx

33

AD: Care Plan Considerations

- Continue to manage co-morbidities with priority on simplifying care plan
- Can the patient identify preferences for care that are consistent with past preferences?
- Identify existing Advanced Care Plan with chosen health care and financial surrogate decision makers, if possible
- Living circumstances-How long can patient be left alone without support?
- Social resources/care partners (informal/formal)
- Financial considerations
- Social support referrals
- Vulnerability to mistreatment
- Referral for caregiver education/support

34

Diagnosis

Like any other disease:

- Look for pattern of pertinent positives and negatives
- Identify potentially reversible causes
- Complete your evaluation and clinical decision-making before sharing a diagnosis with the patient
- Treat what is treatable/reversible
- Follow up and track progress
- Problem solve
- Identify barriers

ACT on Alzheimer's Provider Resources, Clinical Provider Practice Tool. 2016
https://actonalz.org/sites/default/files/documents/ACT-Provider-ClinicalPracticeTool.pdf

35

Providing Feedback

Follow principles of patient-centered care

- **Ask about preferences for level** of detail in feedback
- Discuss interpretation of results, follow-up plan, initial diagnosis, and plan of care with patient and preferred companions
- Use a "teach-back" approach with patient and care partners
- What are the patient's core concerns?
- Explore functioning/context
  - Is the patient living alone, driving, and managing own money and prescriptions?
  - Is the patient living with a person who can/will function as their caregiver?
  - What is the social support network of the patient?
  - Consider involving social work or care coordinator

ACT on Alzheimer's Provider Resources 2016 For Medical Providers | Act on Alzheimer's

Can't Do it All in a Single Visit

***Do not** let patient and family leave initial diagnosis visit without:*

- Written information about AD
- Resources for the person with AD and trusted persons, care partner
  - Social work referral (warm hand-off preferred)
  - Local resources (warm hand-off preferred)
- Follow-up appointment, ideally in 1 month
  - Review diagnosis:
    - What does the patient understand?
    - What do the care partners or trusted people understand?
    - What questions do they have?
  - "What matters?" conversation
  - Discuss medications
  - Advanced care planning
  - Care partners
  - Community connections
  - Safety

Alzheimer's Association website: "I Have Alzheimer's" homepage, "Just Diagnosed. Just Diagnosed | Alzheimer's Association

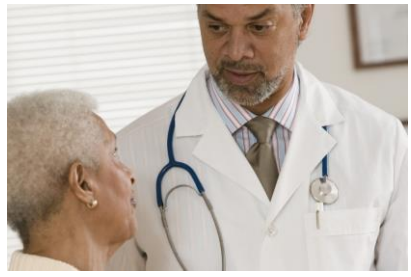
37

The Primary Care AD Team and Referral Process

38

When to Refer

- Differentiate MCI from normal aging
- Uncertainty over diagnosis
- Suspect non-Alzheimer's dementia
  - Hallucinations, REM sleep disorder, and falls
  - Rapidly progressing
  - Positive neurologic exam findings (tremor, fasciculations, weakness, field cut)
- Challenging behaviors or psychosis
- Patient or family request–second opinion
- Medico-legal issues (i.e., financial capacity)
- Genetic counseling



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Build Your Referral Network

- Neurologist
- Geriatric Psychiatrist
- Geriatrician
- Memory Disorders Clinic
- Specialty Testing (i.e. genetic)
- Clinical Trials
- Psychologist/Social Worker
- Occupational Therapy
- Physical Therapy
- Speech Therapy
- Pharmacist
- Adult day programs
- Community organizations

40

Establish Post-diagnostic Patient Support Protocol

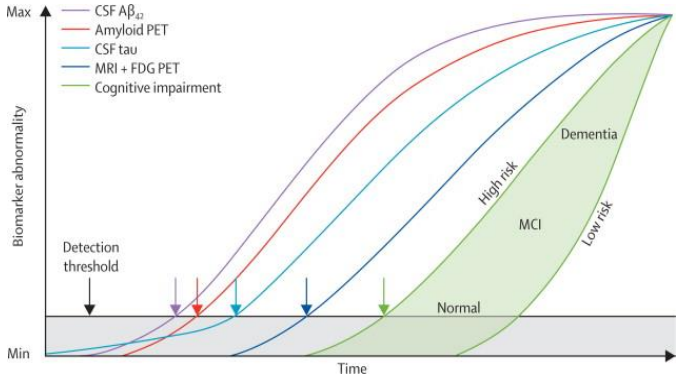
- Appointments
  - Who will be the primary contact
  - Frequency of follow-up
- Between appointment issues
  - Who patient/family should contact
  - Staff responsibility and responses
  - Education and support
- Anticipatory planning
  - Driving/transportation
  - Decreasing function/Increasing care needs
  - Medical care needs

ACT on Alzheimer's Provider Resources 2016 For Medical Providers | Act on Alzheimer's

41

The Pursuit of Early Detection

- Alzheimer's has no cure
- Because of what is now known about biomarkers, definitive diagnostic tests might be just around the corner
- Because of what is known about modifiable risk factors, targeted preventative care for Alzheimer's is a reality today

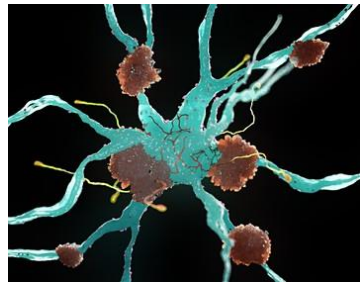


Clifford, J. et al. Lancet Neurol. 2013 Feb;12(2):207-216.

National Institute on Aging. 2021-2022 Alzheimer's Disease and Related Dementias Scientific Advances, Biomarker Research.
Alzheimer's & Related Dementias: Biomarker Research | National Institute on Aging (nih.gov)

What's to Come–The Future, and Now

- Biomarker diagnostic testing for Alzheimer's disease
  - CSF analysis–beta amyloid, Tau proteins
  - PET Scan–beta amyloid, Tau proteins
  - Serum/blood–beta-amyloid
- Disease-modifying treatment
  - FDA approval of monoclonal antibodies (MABs)–but the jury's still out
    - Aducanumab (2021)
    - Lecanemab (2023)
    - Donanemab*
  - Clinical trials
- How will the patient-centric PC AD Care Team respond to these changes?
  - The most powerful tool providers have now is a pro-active, vigorous preventive care approach through lifestyle changes/modifiable risk factors



Website: Alzheimer's Association: Medical Tests for Diagnosing Alzheimer's Earlier Diagnosis | Alzheimer's Association

*Expected late 2023 or early 2024

43

Case Review/Post-Test

Case Introduction: Elaine

- 75-year-old African American woman who suffered an ischemic stroke 3 years ago with no residual deficits. She has been your patient for 10 years.
- Past medical history:
  - Hypertension
  - Type 2 diabetes
  - BMI of 18
- Her daughters say she repeats herself and the patient has noticed she sometimes has trouble finding the right word
- She has a masters degree in English and worked as a fundraiser for a regional charity until her retirement 10 years ago

45

Post Test Question 1

What percent of patients, like Elaine, with early signs of cognitive impairment go undetected in a primary care practice?

A. 10%
B. 25%
C. 50%
D. 70%

46

Case Continuation

- You take additional history, learn that she has stopped going to the senior center, missed a recent book group meeting and daughter says pharmacy had to call twice to remind her to pick up her medication refills
- On review of current medications, you learn that Elaine has been having trouble sleeping at night and she has been taking diphenhydramine (25 mg) up to 2-4 tablets nightly for the past 6 months
- You screen her using the MiniCog tool. Her score indicates that she has missed 2/5 items.

Post Test Question 2

Based on the history what would be on your differential for possible underlying cause of Elaine's change in cognitive function?

A. Alzheimer's disease/vascular dementia, malnutrition, medication toxicity, and urinary tract infection
B. Alzheimer's disease/vascular dementia, malnutrition, vascular ischemia/stroke, and urinary tract infection
C. Alzheimer's disease/vascular dementia, medication toxicity, vascular ischemia/stroke, and urinary tract infection
D. Malnutrition, medication toxicity, vascular ischemia/stroke, and urinary tract infection
E. Alzheimer's disease/vascular dementia, malnutrition, medication toxicity, and vascular ischemia/stroke

48

Case Continuation

- Elaine's physical examination was normal
- Cognitive screening
  - MoCA 25/30
  - GDS 3/15
- Your work-up for Elaine included CBC, Chem 10, TSH, B12, and UA, which show no abnormalities
  - A1C = 5.7
- MRI shows evidence of prior lacunar infarct, increased generalized atrophy from prior scan, most prominent in the temporal-parietal regions

Post Test Question 3

Based on the pertinent positives from Elaine's work-up:

- Change in function and daily routines
- PMH Stroke, HTN, T2DM,
- BMI 18
- Sleep difficulties
- MoCA 25/30
- MRI findings of past lacunar infarct & generalized atrophy

At this point, which team member is the **best** option for consultation or referral?

A. Psychologist/Social Worker
B. Sleep specialist
C. Geneticist
D. Neurologist
E. Pharmacist

50

Key Takeaways–Improved Rate of Early Detection of AD Is Within Reach

- Alzheimer's disease is an epidemic
- Primary care providers will bear the brunt of meeting the needs of an aging global population and its attendant dementias
- Need to be proactive, screen for and accurately detect cognitive decline and its cause–as early as possible-is critical
- PAs trained on evidence-based AD detection, together with a dedicated AD care team and updated, targeted protocols are essential for improved detection, screening, and referral to a specialist

51

Resources

- National Resources
  - https://www.alz.org/help-support/i-have-alz/know-what-to-expect/just-diagnosed
- Mini-Cog Admin with "Sam"
  - https://www.youtube.com/watch?v=CRQEighdb0w
- Video Clip on Mini-Cog Admin and Scoring
  - https://www.youtube.com/watch?v=De7aluks7y8
- ACT on Alzheimer's Clinical Provider Practice Tool
  - https://actonalz.org/sites/default/files/documents/ACTNAT-Provider-ClinicalPracticeTool.pdf
- Video Tutorials
  - https://actonalz.org/sites/default/files/documents/ACTNAT-Provider-ClinicalPracticeTool.pdf
- After a Diagnosis
  - https://static1.squarespace.com/static/559c4229e4b0482682e8df9b/t/561f2778e4b05fb7f59240d4/1444882296205/DFA-Tools-AfterDiagnosis.pdf
- EHR Decision Support Tools for Alzheimer's and Related Dementias
  - https://static1.squarespace.com/static/559c4229e4b0482682e8df9b/t/57714bdcf7e0ab72f1ab3f14/1467042781285/DFA-Tools-EMRManual.pdf
- National Institute on Aging- Alzheimer's Disease and Related Dementias: Resources for Professionals
  - https://www.nia.nih.gov/health/alzheimers-dementia-resources-for-professionals

52

Questions?

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53

Thank You!