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Assessment of Cognition in the Medicare Annual Wellness Visit

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DISCLOSURE OF FINANCIAL RELATIONSHIP

Michael G. Mercury PhD

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Trade Names

The presentation will include discussion of trade names of tests in order to improve communication. Neither Dr. Mercury, or any member of their immediate family have a relevant financial interest or other relationship with the manufacturer(s) of any of the products or providers or of any of the services to be discussed.

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Objectives

1. Use the AWV to evaluate for cognitive changes
2. Understand measures of cognition
3. Review initial steps in a dementia work-up

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Medicare Annual Wellness Visit (AWV)

- The Annual Wellness Visit is a yearly preventative visit for traditional Medicare, Medicare Advantage, and MMAI (Medicare-Medicaid Alignment Initiative) beneficiaries
- Can be done every 12 months at no additional cost to the patient.
- The Health Risk Assessment questionnaire covers preventative care and screening for health and safety
- The AWV does not include a comprehensive physical exam
- An E/M visit may be attached but co-pay charges may apply; use 25 modifier

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Medicare Annual Wellness Visit (AWV)

- Patients continue to be very confused by the concept of an Annual Wellness Exam
- They are expecting a head-to-toe physical
  - The AWV does not require a physical (other than vital signs)
  - Medicare does not pay for physicals
- Consider a hand-out in the waiting room or a brochure about why we do AWVs

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Annual Wellness Visit Case

- Janet D. is an 82-year-old, left-handed married female with 16 years of education. She worked as at teacher for 3 years, then raised her children when they moved back to the farm. When her children were in high school, she worked as Director of Donor Relations for the area university.
- Focused Problem List: Paroxysmal afib, primary hypertension, hyperlipidemia, type two diabetes, stage 3b chronic kidney disease; anemia of chronic disease
- Focused Family Hx: Brother committed suicide age 25 (maternal grandfather also committed suicide); sister died of brain tumor, age 35; Mother, maternal great grandmother and maternal great-great grandmother all had Alzheimer's

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Memory Loss: Initial Evaluation Strategies:

- Be alert to the possibility of dementia in your older patients
  - Especially in established patients
  - Dementia starts with subtle changes
  - Social skills are typically intact
  - Patient may minimize or be unaware
- Interview the family member/caregiver

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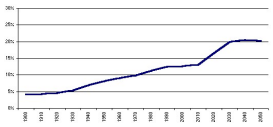
Individuals Over Age 85 Are The Fastest Growing Segment Of Society



Percentage of the U.S. Population Age 65 and Older, 1900 to 2050

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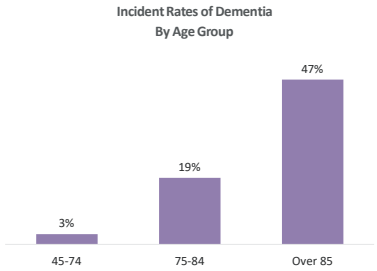
ALZHEIMER'S DISEASE PREVALENCE: INCREASES WITH AGE



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Why bother screening?

Thus, recognition of a dementia syndrome is not a cause for nihilistic despair; rather it is a diagnostic challenge that demands thorough evaluation of the patient for potentially treatable processes that may be producing or exacerbating the intellectual impairment.

(Cummings & Benson, 1992, p. 2)

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Cognitive Screening Improvement Goals

- Older Black and Hispanic Americans more likely than older White Americans to have Alzheimer's Disease (AD) and other dementias
- Studies show poorer rates of detection of AD in racial and ethnic minorities

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Opportunity for Education: Decrease Risk of Dementia

- Be aware of the factors that potentially can reduce risk of cognitive decline.
- The Lancet Commission (Livingston et. al., 2017) identified the following nine potentially modifiable risk factors, a combination of which likely contributes to 35% of dementias. These include:
  - hearing loss
  - social isolation
  - physical inactivity
  - late-life depression
  - midlife obesity
  - midlife high blood pressure
  - diabetes
  - smoking
  - low education attainment (no high school)

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Medicare Annual Wellness Visit

Portions of Exam relevant to Cognition

- Depression Screen (PHQ2/9)
- Hearing/Vision
- Alcohol Use Screening (Audit-C)
- Opioid Screening
- Fall Risk
- Home Safety
- Advance Planning: Does the patient have an advanced directive?

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HRA: Psychosocial Risks and Cognition

including, but not limited to, depression, life satisfaction, stress, anger, loneliness or social isolation, pain, suicidality, and fatigue

- Depression (Late-Onset Depression)
  - Prevalence 5.7% over age 60; 27% over-85
  - Executive dysfunction
    - "I don't know" answers
    - Slowed processing of information (e.g. word-finding)
  - Memory
    - Retrieval memory problems
  - Disrupted Sleep (see below)
- Anxiety (often occurs with depression in older adults)
  - Executive dysfunction
    - Attention/concentration difficulties
- Neurodegenerative changes may precede dementia by as much as 20 years

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HRA: Psychosocial Risks and Cognition

including, but not limited to, depression, life satisfaction, stress, anger, loneliness or social isolation, pain, suicidality, and fatigue

- Loneliness
  - discrepancy between one's desired and perceived quality of social relationships
  - Wilson et al. (2007, 2015) found impairment in perceptual speed, semantic memory, and visuospatial ability.
  - How often have you experienced the following feelings over the last week: I felt lonely?"
    - Response options were: 1 = Almost all of the time; 2 = Most of the time; 3 = Some of the time; 4 = Almost none of the time. This item was reverse scored in the direction of greater loneliness (Luchetti, 2020)

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HRA: Psychosocial Risks and Cognition

including, but not limited to, depression, life satisfaction, stress, anger, loneliness or social isolation, pain, suicidality, and fatigue

- Fatigue
  - Sleep Disorder
    - 1/3 Americans has a sleep disorder
  - Evaluating sleep issues
    - STOPBang (https://www.mdcalc.com/stop-bang-score-obstructive-sleep-apnea)
    - Epworth Sleepiness Scale (https://epworthsleepinessscale.com/about-the-ess/)
  - Use of anticholinergics to treat sleep problems

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Instrumental Activities of Daily Living

Patient Name:_____ Date:_____
Patient ID #_____

LAWTON - BRODY
INSTRUMENTAL ACTIVITIES OF DAILY LIVING SCALE (I.A.D.L.)

Scoring: For each category, circle the item description that most closely resembles the client's highest functional level (either 0 or 1).

A. Ability to Use Telephone		**E. Laundry**	
1. Operates telephone on own initiative-looks up and dials numbers, etc.	1	1. Does personal laundry completely	1
2. Dials a few well-known numbers	1	2. Launders small items-rinses stockings, etc.	1
3. Answers telephone but does not dial	1	3. All laundry must be done by others	0
4. Does not use telephone at all	0		
B. Shopping		**F. Mode of Transportation**	
1. Takes care of all shopping needs independently	1	1. Travels independently on public transportation or drives own car	1
2. Shops independently for small purchases	0	2. Arranges own travel via taxi, but does not otherwise use public transportation	1
3. Needs to be accompanied on any shopping trip	0	3. Travels on public transportation when accompanied by another	1
4. Completely unable to shop	0	4. Travel limited to taxi or automobile with assistance of another	0
		5. Does not travel at all	0
C. Food Preparation		**G. Responsibility for Own Medications**	
1. Plans, prepares and serves adequate meals independently	1	1. Is responsible for taking medication in correct dosages at correct time	1
2. Prepares adequate meals if supplied with ingredients	0	2. Takes responsibility if medication is prepared in advance in separate dosage	0
3. Heats, serves and prepares meals, or prepares meals, or prepares meals but does not maintain adequate diet	0	3. Is not capable of dispensing own medication	0
4. Needs hot meals prepared and served	0		
D. Housekeeping		**H. Ability to Handle Finances**	
1. Maintains house alone or with occasional assistance (e.g. "heavy work domestic help")	1	1. Manages financial matters independently (budgets, writes checks, pays rent, bills, goes to bank), collects and keeps track of income	1
2. Performs light daily tasks such as dish washing, bed making	1	2. Manages day-to-day purchases, but needs help with banking, major purchases, etc.	1
3. Performs light daily tasks but cannot maintain acceptable level of cleanliness	1	3. Incapable of handling money	0
4. Needs help with all home maintenance tasks	1		
5. Does not participate in any housekeeping tasks	0		
Score		**Score**	
		Total score_____	

A summary score ranges from 0 (low function, dependent) to 8 (high function, independent) for women and 0 through 5 for men to avoid potential gender bias.

Source: ey this: Best Practices in Nursing Care to Older Adults, The Hartford Institute for Geriatric Nursing, New York University, College of Nursing, www.hartfordign.org

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Activities of Daily Living

Patient Name:_____ Date:_____
Patient ID #_____

Katz Index of Independence in Activities of Daily Living

Activities (1 or 0)	Independence (1 Point)	Dependence (0 Points)
	NO supervision, direction or personal assistance.	**WITH** supervision, direction, personal assistance or total care.
BATHING Points: _____	**(1 POINT)** Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity.	**(0 POINTS)** Need help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing
DRESSING Points: _____	**(1 POINT)** Get clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	**(0 POINTS)** Needs help with dressing self or needs to be completely dressed.
TOILETING Points: _____	**(1 POINT)** Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	**(0 POINTS)** Needs help transferring to the toilet, cleaning self or uses bedpan or commode.
TRANSFERRING Points: _____	**(1 POINT)** Moves in and out of bed or chair unassisted. Mechanical transfer aids are acceptable	**(0 POINTS)** Needs help in moving from bed to chair or requires a complete transfer.
CONTINENCE Points: _____	**(1 POINT)** Exercises complete self control over urination and defecation.	**(0 POINTS)** Is partially or totally incontinent of bowel or bladder
FEEDING Points: _____	**(1 POINT)** Gets food from plate into mouth without help. Preparation of food may be done by another person.	**(0 POINTS)** Needs partial or total help with feeding or requires parenteral feeding.
TOTAL POINTS: _____	**SCORING:** 6 = High (*patient independent*)	0 = Low (*patient very dependent*

Source:
ey this: Best Practices in Nursing Care to Older Adults, The Hartford Institute for Geriatric Nursing, New York University, College of Nursing, www.hartfordign.org

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KEY STEPS IN THE OFFICE SETTING

Memory Concerns in the office are a call for action

- Family/Caregiver Report
  - For patients who are unaware of their issues, family member must accompany them.
  - Have family members fill out a packet of questionnaires either mailed out to them before hand or while in the waiting room. We use the following:
    - Lawton Instrumental Activities of Daily Living
    - Katz Independence of Activities of daily Living
    - Eight-item informant Interview to Differentiate Aging and Dementia (AD8)
    - Zarit Caregiver Burden 21 - 40 mild to moderate: 41 - 60 moderate to severe 61+ severe
- Review the above
  - This quickly identifies issues that need your attention (nurse can review)
  - You can scan into the Media tab of Epic or your EMR so can review yearly

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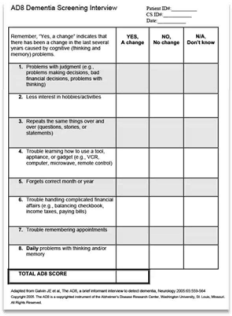
Family/Carepartner Forms

AD8 Screening Tool (≥2 positive for cognitive impairment)

https://www.alz.org/media/Documents/ad8-dementia-screening.pdf



AD8 Dementia Screening Interview

Patient ID#_____
Ck ID#_____
Date_____

Remember: "Yes, a change" indicates that there has been a change in the last several years caused by cognitive (thinking and memory) problems.	YES, A change	NO, No change	N/A, Don't know
1. Problems with judgment (e.g., problems making decisions, bad financial decisions, problems with thinking)			
2. Less interest in hobbies/activities			
3. Repeats the same things over and over (questions, stories, or statements)			
4. Trouble learning how to use a tool, appliance, or gadget (e.g., VCR, computer, microwave, remote control)			
5. Forgets correct month or year			
6. Trouble handling complicated financial affairs (e.g., balancing checkbook, income taxes, paying bills)			
7. Trouble remembering appointments			
8. Daily problems with thinking and/or memory			
TOTAL AD8 SCORE			

Adapted from Galvin JE et al., The AD8, a brief informant interview to detect dementia, Neurology 2005;65:559-564

Copyright 2005 The AD8 is a copyrighted instrument of the Alzheimer's Disease Research Center, Washington University, St. Louis, Missouri All Rights Reserved.

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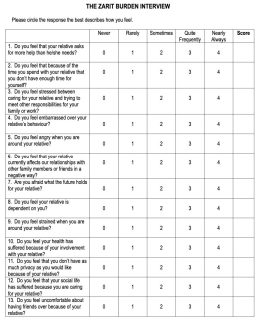
Family/Carepartner Forms

(Zarit et al., 1980)



THE ZARIT BURDEN INTERVIEW

Please circle the response the best describes how you feel.

	Never	Rarely	Sometimes	Quite Frequently	Nearly Always	Score
1. Do you feel that your relative asks for more help than he/she needs?	0	1	2	3	4	
2. Do you feel that because of the time you spend with your relative that you don't have enough time for yourself?	0	1	2	3	4	
3. Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work?	0	1	2	3	4	
4. Do you feel embarrassed over your relative's behaviour?	0	1	2	3	4	
5. Do you feel angry when you are around your relative?	0	1	2	3	4	
6. Do you feel that your relative currently affects our relationships with other family members or friends in a negative way?	0	1	2	3	4	
7. Are you afraid what the future holds for your relative?	0	1	2	3	4	
8. Do you feel your relative is dependent on you?	0	1	2	3	4	
9. Do you feel stressed when you are around your relative?	0	1	2	3	4	
10. Do you feel your health has suffered because of your involvement with your relative?	0	1	2	3	4	
11. Do you feel that you don't have as much privacy as you would like because of your relative?	0	1	2	3	4	
12. Do you feel that your social life has suffered because you are caring for your relative?	0	1	2	3	4	
13. Do you feel uncomfortable about having friends over because of your relative?	0	1	2	3	4	

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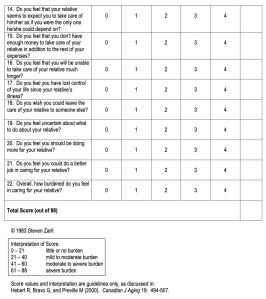
Family/Carepartner Forms

Zarit



14. Do you feel that your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on?	0	1	2	3	4	
15. Do you feel that you don't have enough money to take care of your relative in addition to the rest of your expenses?	0	1	2	3	4	
16. Do you feel that you will be unable to take care of your relative much longer?	0	1	2	3	4	
17. Do you feel you have lost control of your life since your relative's illness?	0	1	2	3	4	
18. Do you wish you could leave the care of your relative to someone else?	0	1	2	3	4	
19. Do you feel uncertain about what to do about your relative?	0	1	2	3	4	
20. Do you feel you should be doing more for your relative?	0	1	2	3	4	
21. Do you feel you could do a better job in caring for your relative?	0	1	2	3	4	
22. Overall, how burdened do you feel in caring for your relative?	0	1	2	3	4	
Total Score (out of 88)						

© 1983 Steven Zarit

Interpretation of Score:	
0 – 21	little or no burden
21 – 40	mild to moderate burden
41 – 60	moderate to severe burden
61 – 88	severe burden

Score values and interpretation are guidelines only, as discussed in: Hebert R, Bravo G, and Preville M (2000). *Canadian J Aging* 19: 494-507.

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AWV Case

- Janet D. completes her screening:
  - PHQ-2 0
  - IADLs 8/8
  - ADL 6/6
- However, her family has concerns about forgetfulness, misplacing items (keys, phone), word finding (names of familiar objects and places), using the wrong words.
  - AD8= 1
  - Zarit= 3 (little or no burden)

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Measures of Cognition

Screening for cognitive impairment

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What percent of seniors receive regular cognitive assessments?

SPECIAL REPORT
ALZHEIMER'S DETECTION IN THE PRIMARY CARE SETTING:
CONNECTING PATIENTS WITH PHYSICIANS

16 PERCENT

of seniors receive regular cognitive assessments during routine health check-ups.

Alzheimer's Association (2019)

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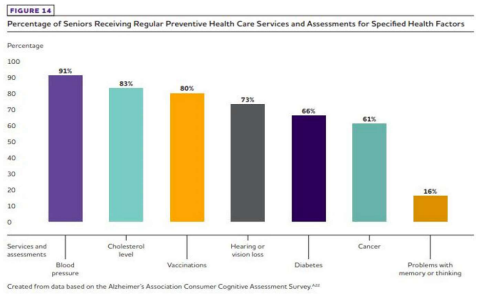
How does this compare to other screening?



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Getting ready for the Cognitive Screening

- Health Risk Assessment gives you context
- What is your pre-test probability that this patient may have memory issue?

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Difficulties in screening for/diagnosing Alzheimer's?

- Misattribution: Memory loss is misattributed to normal aging by physician and family. Until problems arise (e.g. unpaid bills, not taking medicines), family assumes patient is functional
- Loss of insight: "La belle indifference," is typically early, so patients will not complain of memory problems
- Social skills: Can be preserved through moderate dementia, so interviewing the patient may not reveal problems
- Barriers to screening:
  - Lack of confidence in own skills
  - Fear of offending patient by asking mental status questions
  - Limited sensitivity of screening tests

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Screening Measures

- Remember, we are screening for cognitive impairment with the AWV.
- Any abnormalities will require further workup; just like an abnormal CXR
- Keeping a screening measures at hand (Mini-Cog©, Clock Drawing Test, MMSE©, MoCA©, SLUMS)

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Screening Cognitive Function at the AWV
"The Mini-Cog™"

http://mini-cog.com/
Mini-Cog ™(3 words, Clock Drawing) **~ 2 minutes**
- **3 word test – initial presentation**
- **Clock Drawing**
- **3 word test – delayed recall**

- Time efficient (~ 4 minutes)
- Detects early dementias
- Can be used to differentiate dementias
- Less language/culture/education bias
- High yield True Positives
- Establishes baseline for repeated screening
- Target Population: 65 years and older with new patients or annual visit
- Public Domain

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Mini-Cog™ Instructions for Administration & Scoring

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.[1-3] 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.

Word List Version: ____ Person's Answers: ____________ ____________ ____________

Scoring

Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. 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.

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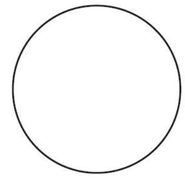
Clock Drawing

ID: __________ Date: ________________



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The Clock Drawing Test in Action: Scoring

Longitudinal follow-up: 82-year-old man with 18 years of education (teacher) with Alzheimer's, essential tremor, anxiety.

06-25-2020

07-02-2021

Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.

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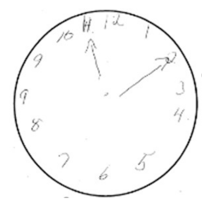
The Clock Drawing Test in Action:

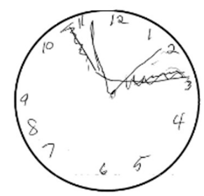
Longitudinal follow-up: 82-year-old man with 18 years of education (teacher) with Alzheimer's, essential tremor, anxiety.

06-25-2020:



0

07-02-2021; one year later



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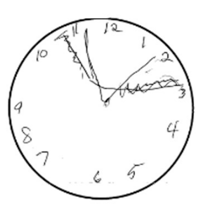
The Clock Drawing Test in Action:

Longitudinal follow-up: 82-year-old man with 18 years of education (teacher) with Alzheimer's, essential tremor, anxiety.

06-25-2020:

Vertex (graphical), planning/spatial, perseveration of 9 0

07-02-2021; one year later



Original hands (graphical), planning/spatial, conceptual – hand length; corrected (process) 2

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What to do with the Mini-Cog

- If possible, scan the Mini-Cog into your EMR (Media in Epic; Images in Cerner)
- With the Haiku phone app, you can take a photo of the CDT (and other tests) and scan immediately in. Can also copy and paste into your note!
- In addition to the score for the Clock portion of the Mini-Cog, scanning documents the following:
  - Allows identification of change over time
  - Visuospatial and executive functioning
  - Differentiation of likely type of dementia

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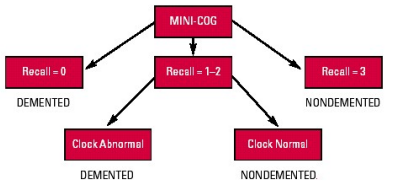
Figure 1. The Mini-Cog scoring algorithm. The Mini-Cog uses a three-item recall test for memory and the intuitive clock-drawing test. The latter serves as an "informative distractor," helping to clarify scores when the memory recall score is intermediate.



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Clock Drawing Test

What are the skills needed to draw a clock?

- Comprehension (auditory)
- Planning
- Visual memory
- Visuospatial (e.g. visual neglect)
- Numerical knowledge
- Abstract thinking
- Inhibition
- Concentration

Shulman (2000)

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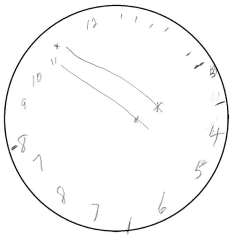
Errors: Graphical

- Numbers difficult to read
- Hands do not connect at the vertex



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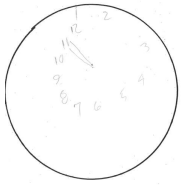
Errors: Stimulus Bound

- Patient does not re-code the "10" in "10 after 11" as a 2 (lack of abstraction)
- A one is written near or between the 10 and 11. Hands may be absent or pointed toward 10 and/or 11.



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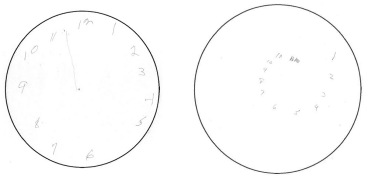
Errors: Conceptual

- Loss/impairment of ability to access knowledge of the attributes, features and meaning of a clock.
- Include: does not look like a clock, hands do not communicate a time or absent, time written on the clock
- Likely due to impairment of semantic memory (i.e. our stored conceptual and factual knowledge not related to any specific memory, the latter being episodic memory.



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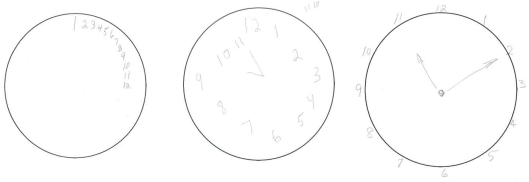
Errors: Planning and/or Spatial

- Errors in layout of the numbers (neglect of left hemisphere, planning deficits resulting in gaps in number spacing, deficits in spatial layout of numbers, numbers written outside clock face, numbers written in counterclockwise.



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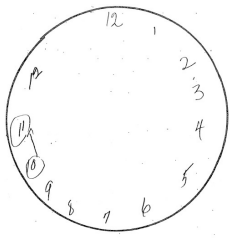
Errors: Perseveration

- Continuation or recurrence of activity without a stimulus"
  - Hands more than two hands
  - Writing numbers beyond 12



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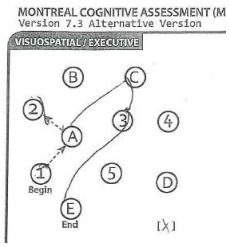
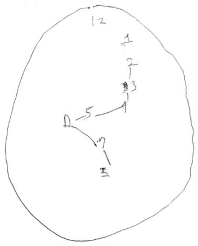
Errors: Proactive Interference

A special type of perseveration





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Issues with the MMSE

- Takes10-15 minutes to administer
- Language and cultural bias
  (e.g. *no ifs, ands, or buts*)???
- Highly educated individuals can score 28/30 or higher and still have dementia
- Does not assess executive function and can miss frontotemporal dementia
- **Copyrighted; now enforced by PAR $1.36/administration**

Some benefits…
- Everyone is trained in it
- Helpful for tracking decline (>3 pt. decline clinically significant)
- Some facilities request an MMSE score

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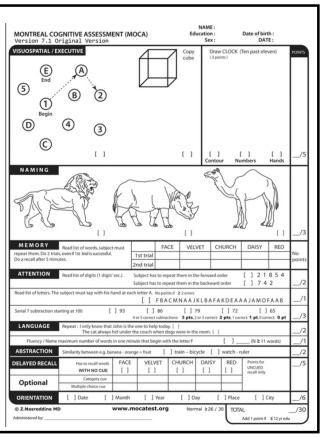
MOCA

Montreal Cognitive Assessment

- Now requires training ($125 2 years)
- ~ 15 minutes vs. 10 minutes
- Executive function (clock is too small)
- Valid confrontation naming
- Recall and recognition memory
- 3 alternate forms minimize practice
- ~60 languages
- Blind, but not deaf (English & Spanish)
- Physical disability

Score	Interpretation
27+	Intact
18-26	MCI
10-17	Mod Cog Imp
<10	Severe



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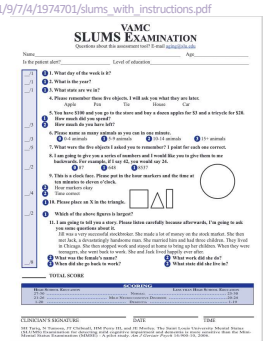
SLUMS

VAMC Saint Louis University Mental Status Examination

http://www.drarmandohernandez.com/uploads/1/9/7/4/1974701/slums_with_instructions.pdf

- Available in the public domain
- Has good validity, sensitivity, and specificity for cognitive impairment



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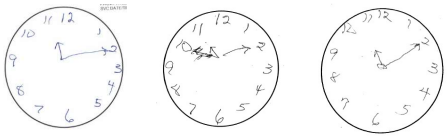
Janet's Mini-Cogs Over Time



1/3 words, 2/2 Clock 2019

1/3 words, 2/2 Clock 2021

1/3 words, 0/2 Clock 2023

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Conceptualization of Cognitive Screening

Normal Aging	Mild Cognitive Impairment	Dementia
Intact IADLs Intact screening	Intact IADLs Impaired screening	Impaired IADLs Impaired screening

Janet's IADLs are intact, her Mini-Cog is impaired and so your screening would suggest Mild Cognitive Impairment (MCI).

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Next Steps

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Workup for Dementia

Studies Recommended by the American Geriatrics Society for Patients with Suspected Dementia

LABORATORY TESTS	*IMAGING TESTS*	*TESTS TO CONSIDER IN PATIENTS WITH SPECIFIC RISK FACTORS*
Calcium level	Computed tomography or magnetic resonance imaging of the brain if any of the following are present:	Cerebrospinal fluid analysis
Complete blood count	Abrupt or rapid decline	Human immunodeficiency virus test
Complete metabolic panel	Age younger than 60 years	Lyme titer
Folate level	Focal deficits	Rapid plasma reagin test
Thyroid-stimulating hormone level*	Predisposing conditions	
Vitamin B_{12} level*	Consider positron emission tomography if definitive diagnosis will change management decisions	
Vitamin D		

*—The only tests routinely recommended by the American Academy of Neurology for all patients with suspected dementia are thyroid-stimulating hormone and vitamin B_{12} levels.[3]

Adapted from *Am Fam Physician*. 2011 Oct 15;84(8):895-902

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WHY IS EARLY IDENTIFICATION KEY?

No disease modifying medications available yet.

- Behavior Management: Many neuropsychiatric symptoms are **treatable** (e.g. depression, sleep)
- Advance Care Planning: Helps families plan for the future, making living arrangements, take care of financial and legal matters, educate about behavior strategies and develop support networks – hopefully reducing caregiver burden. **Powers of Attorney: Health, Finances**
- Safety Issues:
  - forgetting to turn off stove or other appliances,
  - forgetting to pay bills,
  - getting lost when driving,
  - forgetting they are taking care of minor children/impaired adults,
  - forgetting emergency phone number 911.

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The History: Looking for Moderating Factors and Reversible Causes

- Physical Problems: Pain, OA
- Impaired attention: Hearing & Vision Loss
- Sleep problems (sleep apnea)
- Habits (Alcohol consumption)
- Depression, Anxiety, Stress

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DEPRESSION IN DEMENTIA

- 15-27% of individuals >65 living in the community have depressive symptoms.
- Seniors have 50% higher health care costs if depressed
- Look for change in appetite, sleep and energy level.
- Look for crying, tearfulness, hopelessness, self-deprecating comments.
- "The time seems to drag on" and this altered perception of time may lead to feelings of helplessness, or the feeling that one is not in control of their lives
- Prevalence in women over 60 may be twice that of men of same age.
- Depression can amplify cognitive deficits
  - Executive dysfunction
  - Slowed processing of information
  - Retrieval memory problems

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The History: Looking for Moderating Factors and Reversible Causes

- Deprescribing
- Avoid anticholinergics (Incontinence and Sleep)

-e.g. Oxybutynin (**brand name Ditropan**)

-Diphenhydramine **(brand name Benadryl**; 13.5 hrs half-life in elderly)
- This is in Tylenol PM, Excedrin PM, Advil PM, Unisom SleepGels/Melts/Minis, and Bayer Nighttime.

-Doxylamine succinate (100-12 hrs half-life in adults, longer in elderly) found in Unisom Sleep Tabs, Kirkland Sleep Aid).

- Three years of daily diphenhydramine is associated with about a ten percentage point increase in the probability of experiencing dementia or Alzheimer's compared to no use (Gray et al., 2015 JAMA Intern Med. 2015;175(3):401-407)!!

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Dementia Resources

Websites
- Alzheimer's Association (https://www.alz.org/). The 24/7 HELPLINE is excellent for general questions, support, crises. You can call the 24 hour/7 day a week Helpline (800-272-3900) for general questions, support, or crises that arise. I use them all the time when I have a question.
- Alzheimer's Society Canada (http://alzheimer.ca/en/Home)
- Dementia Australia (https://www.dementia.org.au/)
- Alzheimer's Society (https://www.alzheimers.org.uk/)
- UCSF's Tips for Daily Life (https://memory.ucsf.edu/tips-daily-life)

Publications
- https://order.nia.nih.gov/publication/caring-for-a-person-with-alzheimers-disease-your-easy-to-use-guide (free)

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FREE PUBLICATIONS

National Institute on Aging (https://order.nia.nih.gov/)

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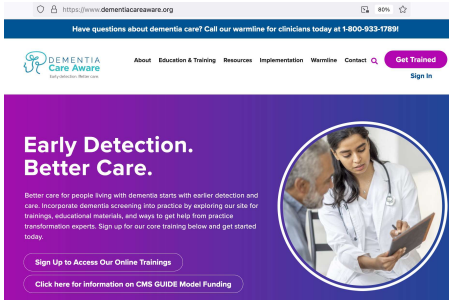
More Information?

CME; AAFP prescribed credits



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Objectives

1. Use the AWV to evaluate for cognitive changes
2. Understand measures of cognition
3. Review initial steps in a dementia work-up

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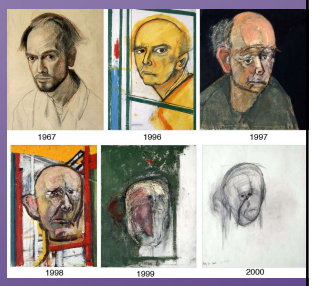
Questions?



William Utermohlen 1933 -2007 (diagnosed 1995)

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