GERIATRIC NEUROBEHAVIOR & ALZHEIMERS CENTER
at Rancho Los Amigos Rehabilitation Center

RANCHO LOS AMIGOS
NATIONAL REHABILITATION CENTER

Keck School of Medicine of USC

Eighty Isn't Fifty; Assessment of the Older Adult Patient

FREDDI SEGAL-GIDAN, PA, PHD

ASSISTANT PROFESSOR CLINICAL NEUROLOGY & FAMILY MEDICINE, KECK SCHOOL OF MEDICINE OF USC

DIRECTOR, USC-RANCHO GERIATRIC NEUROBEHAVIOR & ALZHEIMERS CENTER

Disclosure

I have no relevant relationships with ineligible companies to disclose within the past 24 months.

Question 1

Which is not one of the 5 Ms of Geriatrics?

a. Medications
b. Medical Problems
c. Mobility
d. Mind
e. Matters Most

Question 2

The Beers criteria contains

a. Alcohol content of most popular beers
b. Rules for determining capacity in an older adult
c. Dosages for vitamins for older adults
d. High risk medications for older adults
e. Deprescribing guideline

Question 3

Which brief mental status screening instrument is available without cost and in multiple languages?

a. Mini Cog
b. Mini Mental Status Exam (MMSE)
c. St Louis Mental Status Exam (SLUMS)
d. Montreal Cognitive Assessment (MoCA)
e. None of the above

Objectives

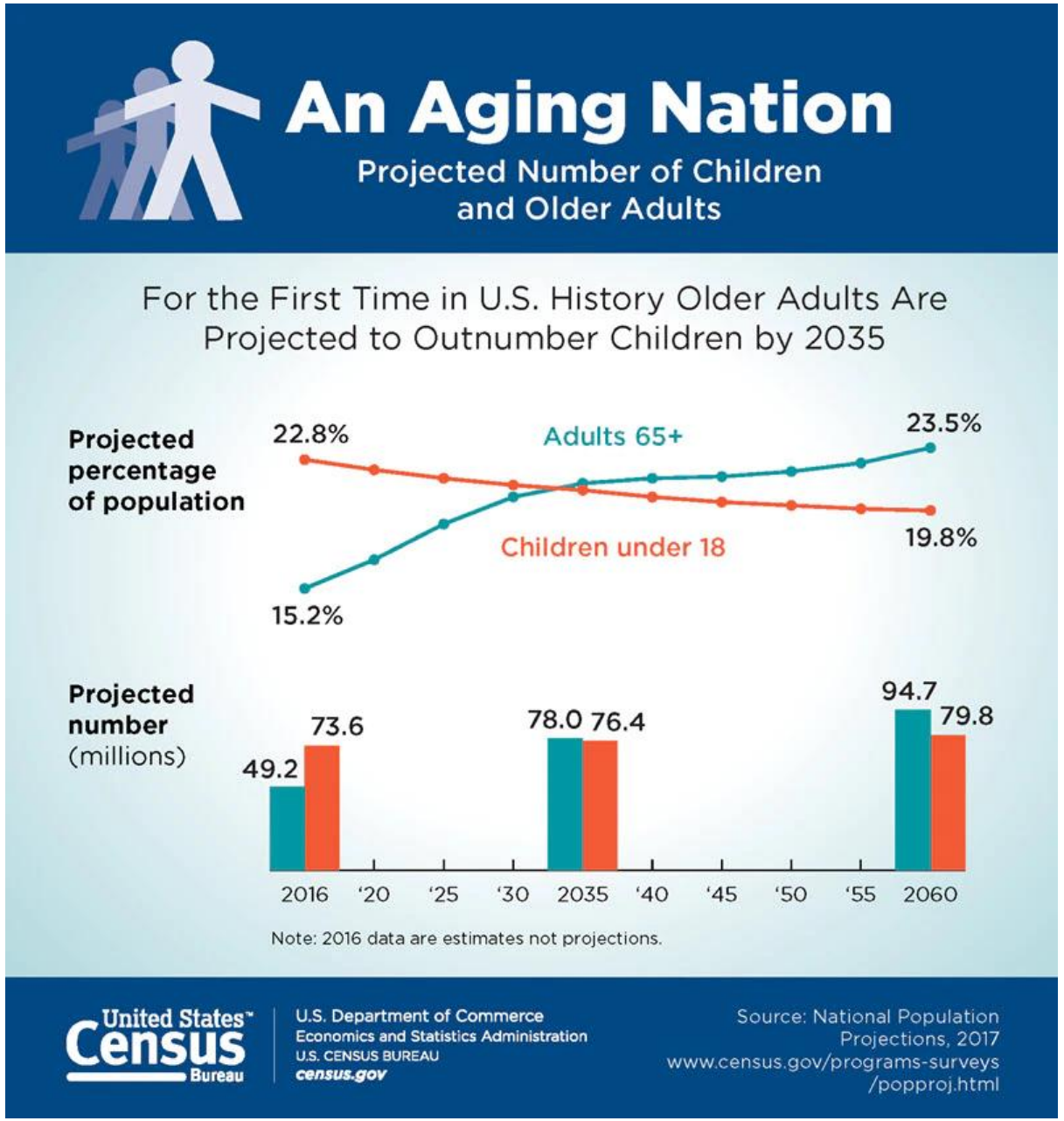
Describe a functional based approach to the history in an older adult patient

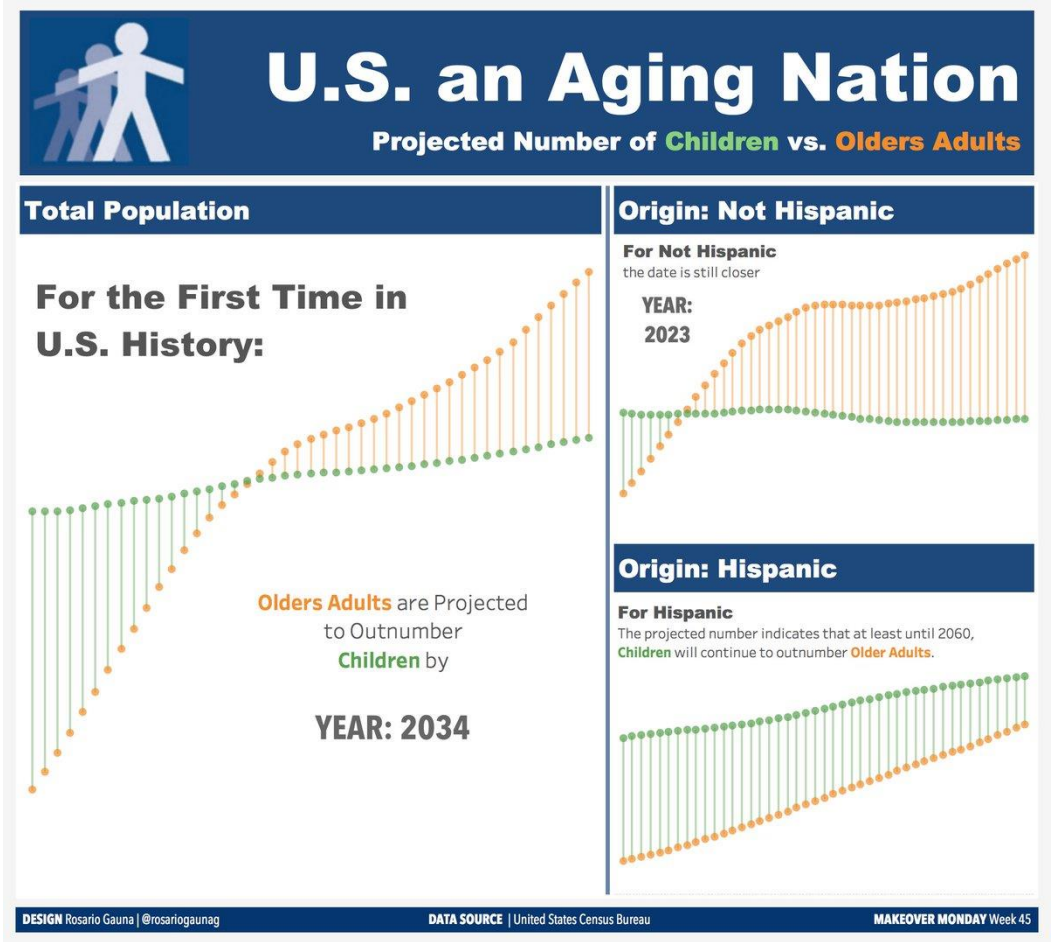
Incorporate geriatric assessment tools into the routine evaluation of an older adult patient

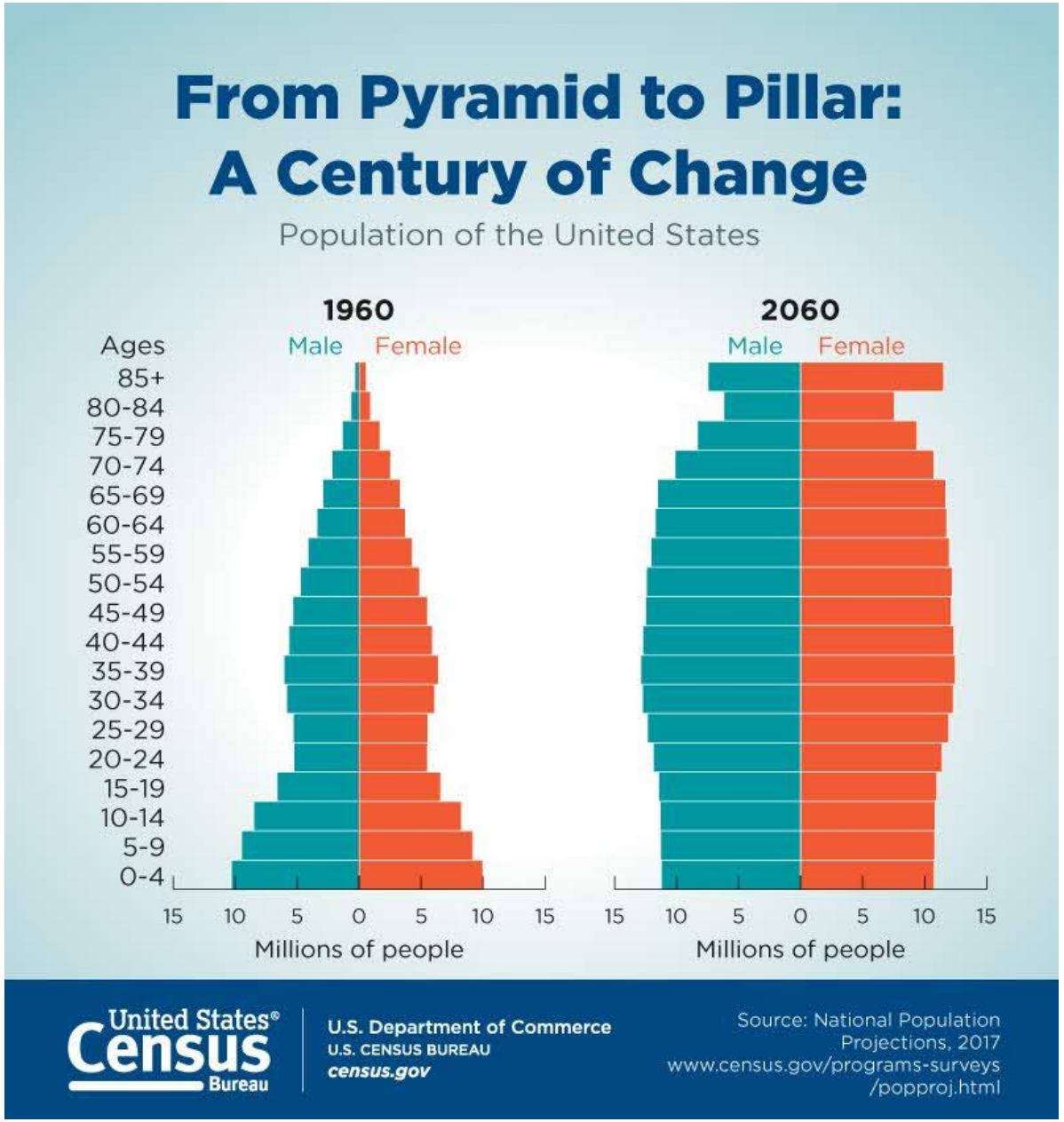
Identify common differences in physical exam findings associated with increasing age

Describe the 5Ms of geriatrics

Background/Context


An Aging Nation
Projected Number of Children and Older Adults
For the First Time in U.S. History Older Adults Are Projected to Outnumber Children by 2035
Projected percentage of population
22.8%
Adults 65+
23.5%
Children under 18
19.8%
15.2%
Projected number (millions)
49.2
73.6
78.0
76.4
94.7
79.8
2016
'20
'25
'30
2035
'40
'45
'50
'55
2060
Note: 2016 data are estimates not projections.
United States Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
Source: National Population Projections, 2017
www.census.gov/programs-surveys/popproj.html


U.S. an Aging Nation
Projected Number of Children vs. Olders Adults
Total Population
For the First Time in U.S. History:
Olders Adults are Projected to Outnumber Children by
YEAR: 2034
Origin: Not Hispanic
For Not Hispanic
the date is still closer
YEAR: 2023
Origin: Hispanic
For Hispanic
The projected number indicates that at least until 2060, Children will continue to outnumber Older Adults.
DESIGN Rosario Gauna | @rosariogaunag
DATA SOURCE | United States Census Bureau
MAKEOVER MONDAY Week 45


From Pyramid to Pillar:
A Century of Change
Population of the United States
1960
2060
Ages
Male
Female
85+
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
15 10 5 0 5 10 15
Millions of people
United States® Census Bureau
U.S. Department of Commerce
U.S. CENSUS BUREAU
census.gov
Source: National Population Projections, 2017
www.census.gov/programs-surveys/popproj.html

Heterogeneity of Older Adult Population

There is no ‘typical’ older adult

People age at different rates

Rate of aging influenced by genetics, lifestyle, diseases, environmental and socioeconomic factors

Aging introduces greater variability

- in presentation of disease
- In therapeutic responses

Unique challenges of caring for older adults

Lengthy history

Normal aging vs disease

Sensory deficits; visual & hearing impairments

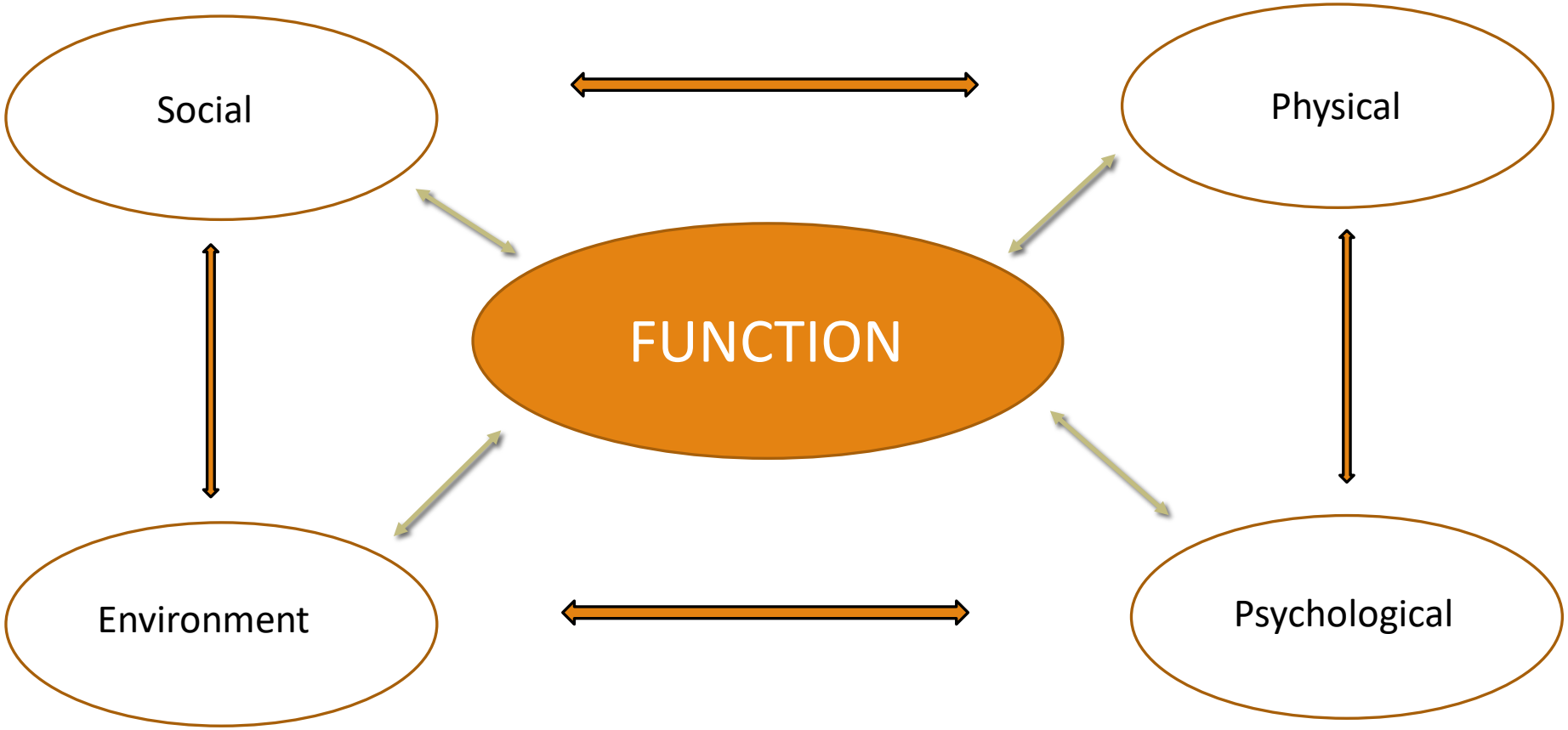
Cognitive impairment

Multimorbidity is common
- Multiple chronic diseases
- Chronic disease + acute condition

Geriatric syndromes vs individual disease
- Falls
- Frailty

Polypharmacy

Focus on Function



5 Ms of Geriatrics

Matters Most –

Each individual's values, health outcome goals, and preferences

Mind

Mentation, Dementia, Delirium, Depression

Mobility

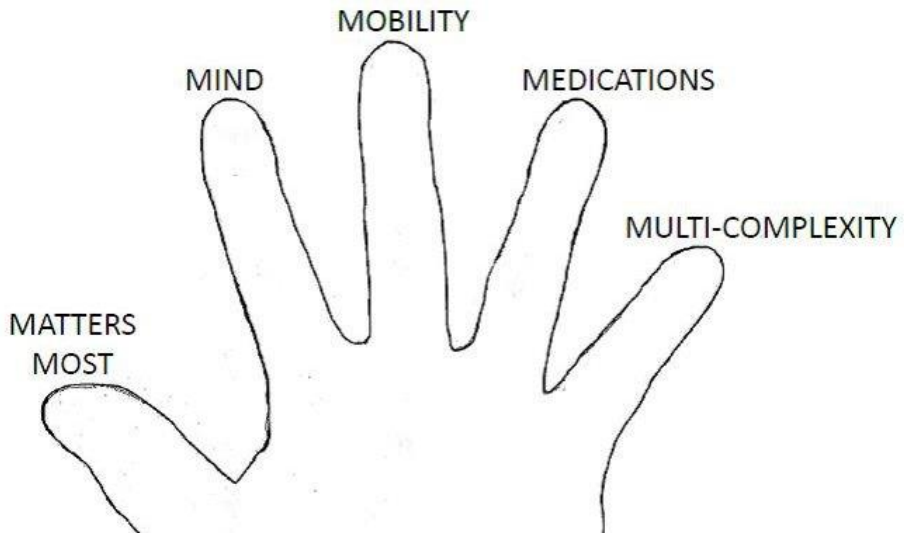
Amount of mobility, gait and balance, falls risk and injury prevention

Medications

Polypharmacy, optimal prescribing, deprescribing, adverse effects

Multicomplexity

Whole person within context of bio-psycho- socio- economic



OLDER ADULT CASE

You are working in (*type of practice*).

H is **82** yo retired (former occupation) who you are seeing for *(chief complaint*).

Lives with spouse, X adult children living _____.

Takes _____ medications.

Has hx of _____

HOW WILL YOUR APPOACH TO CARE (EVALUATION & TREATMENT) DIFFER THAN IF THE AGE WAS 52?

History

Interview/ History – Person Center/Individual & Function Focused

What's important to you?

Describe your typical day

How does ___ impact what you can/cannot do?

Do you need assistance?

- Instrumental Activities of Daily Living (IADLs)
  - Cooking, Shopping, Laundry, Finances, Appointments, Medication Management
- Basic Activities of Daily Living (ADLs)
  - Feeding, Bathing, Toileting, Dressing, Transferring/Walking

Inclusion of family member or other informant

Functional Assessment Tools

ACTIVITIES POINTS (1 OR 0)	INDEPENDENCE: (1 POINT) **NO** supervision, direction or personal assistance	DEPENDENCE: (0 POINTS) **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)** Needs 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)** Gets 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 transferring aides 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 = _____ 6 = High (*patient independent*) 0 = Low (*patient very dependent*)

Slightly adapted from Katz, S., Down, T.D., Cash, H.R., & Grotz, R.C. (1970) Progress in the development of the index of ADL. *The Gerontologist*, 10(1), 20-30.

THE LAWTON INSTRUMENTAL ACTIVITIES OF DAILY LIVING SCALE

Ability to Use Telephone
1. Operates telephone on own initiative; looks up and dials numbers 1
2. Dials a few well-known numbers 1
3. Answers telephone, but does not dial 1
4. Does not use telephone at al 0

Shopping
1. Takes care of all shopping needs independently 1
2. Shops independently for small purchases 0
3. Needs to be accompanied on any shopping trip 0
4. Completely unable to shop 0

Food Preparation
1. Plans, prepares, and serves adequate meals independently 1
2. Prepares adequate meals if supplied with ingredients 0
3. Heats and serves prepared meals or prepares meals but does not maintain adequate diet 0
4. Needs to have meals prepared and served 0

Housekeeping
1. Maintains house alone with occasion assistance (heavy work) 1
2. Performs light daily tasks such as dishwashing, bed making 1
3. Performs light daily tasks, but cannot maintain acceptable level of cleanliness 1
4. Needs help with all home maintenance tasks 1
5. Does not participate in any housekeeping tasks 0

Laundry
1. Does personal laundry completely 1
2. Launders small items, rinses socks, stockings, etc 1
3. All laundry must be done by others 0

Mode of Transportation
1. Travels independently on public transportation or drives own car 1
2. Arranges own travel via taxi, but does not otherwise use public transportation 1
3. Travels on public transportation when assisted or accompanied by another 1
4. Travel limited to taxi or automobile with assistance of another 0
5. Does not travel at all 0

Responsibility for Own Medications
1. Is responsible for taking medication in correct dosages at correct time 1
2. Takes responsibility if medication is prepared in advance in separate dosages 0
3. Is not capable of dispensing own medication 0

Ability to Handle Finances
1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank); collects and keeps track of income 1
2. Manages day-to-day purchases, but needs help with banking, major purchases, etc 1
3. Incapable of handling money 0

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

Medication Use

Prescription drugs

- 90% of older adults **regularly take at least 1 prescription drug**
- 80% regularly take at least 2 prescription drugs
- 36% regularly take at least 5 different prescription drugs

Over the counter

- 30% of use is by older adults
- 70% use vitamin, supplements, &/or herbal products
- 50% ADEs involve OTCs
  - NSAIDs & diphenhydramine most common

Polypharmacy

- *Unnecessary or excess use* of multiple medications

Medication History

List of current medications (prescribed & OTC)

- Name, dose, reason

Brown bag test

- bring *all* medications currently being taken
  - Prescriptions
  - OTCs including vitamins & supplements

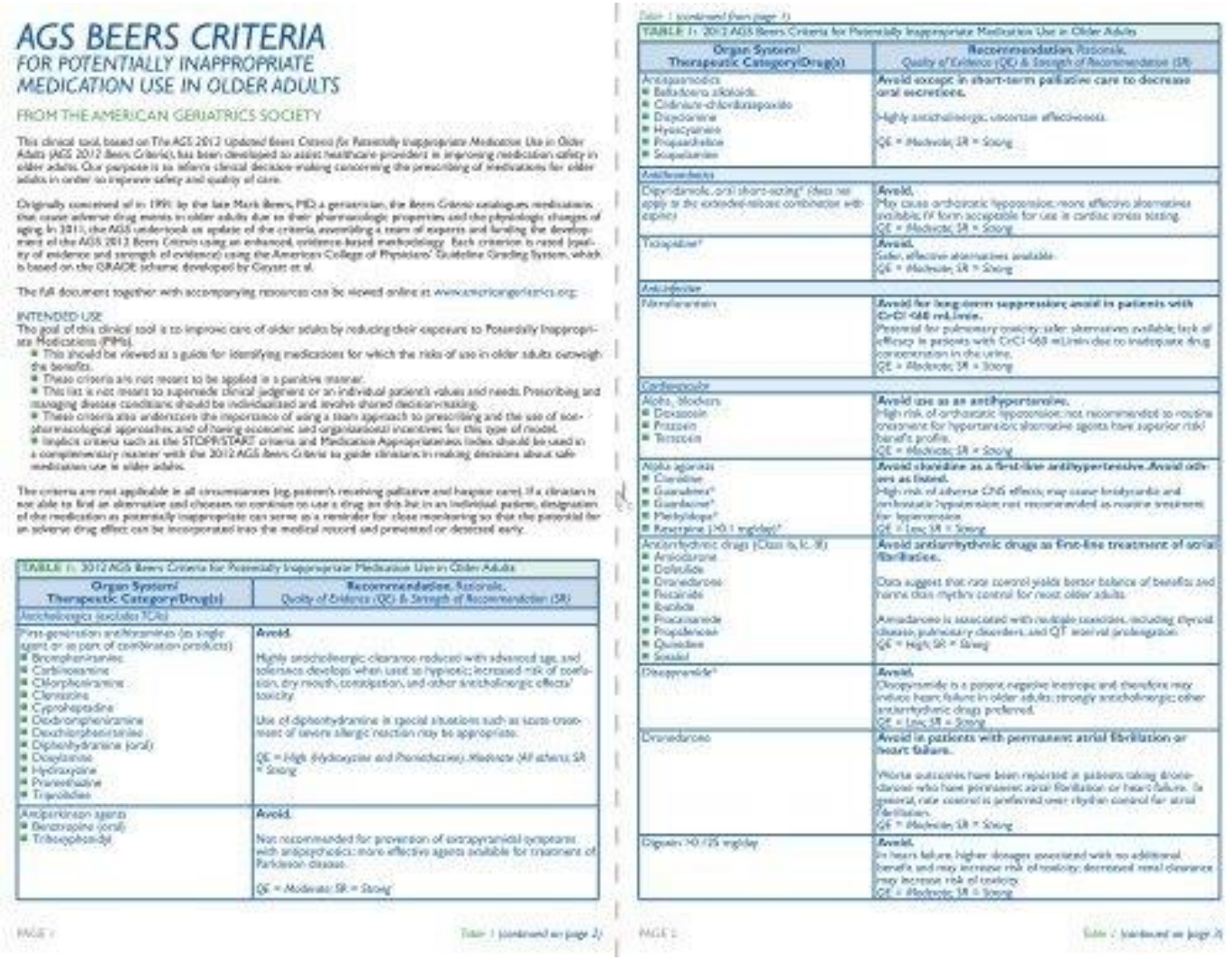
Reconciliation

- Every visit
- Every transition in care

High Risk Medications

USE WITH CAUTION

- Sedative hypnotics
- Benzodiazepines
- Muscle Relaxants
- NSAIDS
- Anticholinergics
- Antipsychotics



AGS BEERS CRITERIA
FOR POTENTIALLY INAPPROPRIATE MEDICATION USE IN OLDER ADULTS

FROM THE AMERICAN GERIATRICS SOCIETY

American Geriatrics Society – printable pocket card

Deprescribing

The planned and supervised process of stopping or reducing a medication that is causing more harm than good or no longer providing benefit

- Identify unnecessary medications
- Goal: Fewest essential medications fewest times a day
- One change at a time
- Clinical pharmacy consultation if possible for complex cases

Physical Exam – Normal Aging vs Disease? Common Findings

Sensory Function & Impairment

Vision changes

- Cataracts – impact acuity
- Visual fields – glaucoma, CVA
- Funduscopic – HTN, DM

Hearing loss

- Depression, loneliness, social isolation
- Cognitive decline

Peripheral neuropathy

- Gait and balance ⟹ falls
- Sleep disturbance

Vital Signs

Weight – significant change be suspicious

- Loss - depression, cancer, hypo/hyper thyroid
- Gain – heart failure, hypothyroid

Blood Pressure

- Systolic > diastolic with age
- Orthostatic changes

Pulse

- Irregularity - arrhythmias increase with age
- Tachycardia – underlying infection w/out fever

Gait & Balance

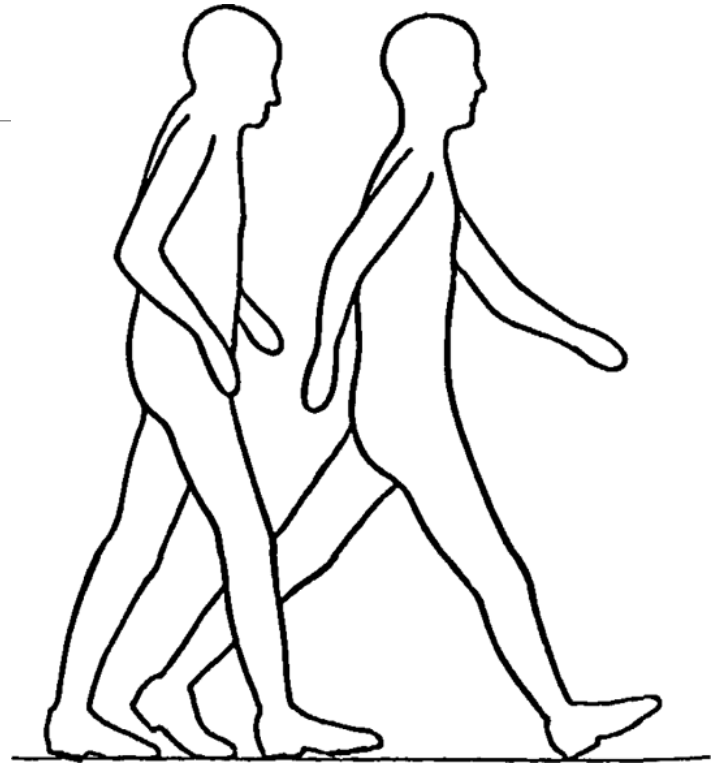
Watch the person walk

Examine shoes for wear

Examine feet (take off shoes & socks)

Normal changes in gait

- Widened stance
- 10-20% decrease velocity/speed and stride length
- Increased time double stance
- Forward flexion
- Increased use of assistive devices



30 Sec Sit-to-Stand

1. Sit in the middle of the chair.

2. Place your hands on the opposite shoulder crossed, at the wrists.

3. Keep your feet flat on the floor.

4. Keep your back straight, and keep your arms against your chest.

5. On “Go,” rise to a full standing position, then sit back down again.

6. Repeat this for 30 second

MEN			
Age group (years)	**Below Average**	**Average**	**Above Average**
60 – 64	< 14	14 – 19	>19
65 – 69	< 12	12 – 18	>18
70 – 74	< 12	12 – 17	>17
75 – 79	< 11	11 – 17	>17
80 – 84	< 10	10 – 15	>15
85 – 89	< 8	8 – 14	>14
90 – 94	< 7	7 – 12	>12

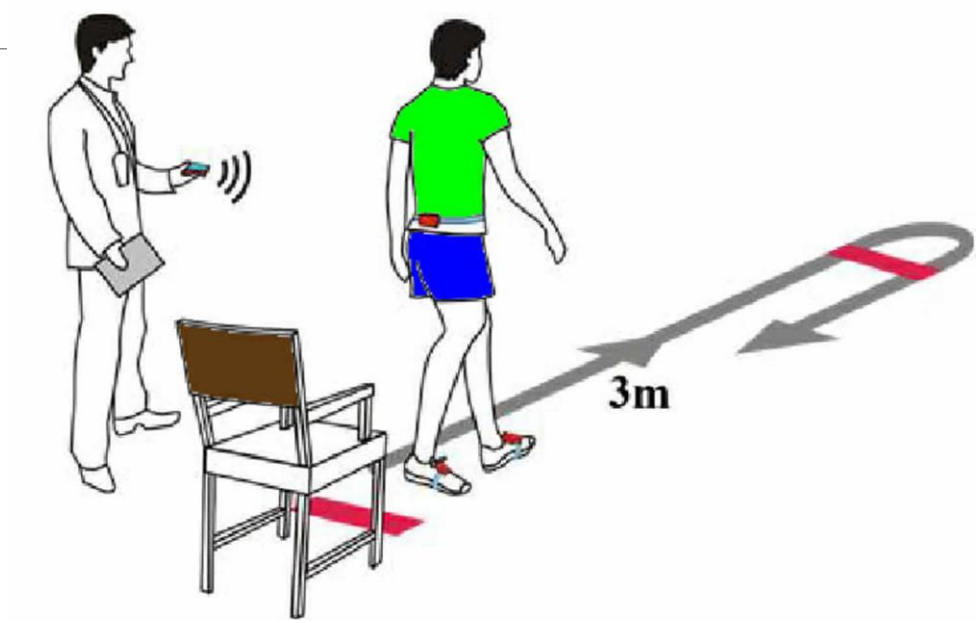
WOMEN			
Age group (years)	**Below Average**	**Average**	**Above Average**
60 – 64	< 12	12 – 17	>17
65 – 69	< 11	11 – 16	>16
70 – 74	< 10	10 – 15	>15
75 – 79	< 10	10 – 15	>15
80 – 84	< 9	9 – 14	>14
85 – 89	< 8	8 – 13	>13
90 – 94	< 4	4 – 11	>11

Timed Up and Go (TUG)

"When I say 'go', I want you to stand up and walk to the line, turn and then walk back to the chair and sit down again.

Walk at your normal pace."

Older adults who take **longer than 14 seconds** to complete the TUG **have a high risk for falls**



The 3 Ds of Geriatrics:

Depression – Delirium - Dementia

Commonly occur in older adults

Can look alike

Depression - alteration of usual mood, sadness, lack of enjoyment, sufficient to interfere with function

Delirium - Acute onset, fluctuation in attention, potentially reversible

Dementia –Acquired cognitive deficits sufficient to interfere with function

Depression

Common - ***not*** normal aging

- Affects 6 million – 10% treated
- 1% community dwelling
- 11.5% hospitalized

Risk factors

- Hx depression earlier in life
- Medication & substance use
- Hx trauma
- Unresolved grief & loss
- Poor health, disability
- Social isolation, loneliness
- Institutionalization

Common symptoms:

- Tiredness, fatigue
- Sleep disturbance
- Confusion
- Grumpy, irritable
- Slowness
- Aches and pains
- Lack of enjoyment usual activities
- Suicidal thoughts (M>F)

Depression Screening Tools

P:HQ 9

		Not at all	Several days	More than half the days	Nearly every day
1.	Little interest or pleasure in doing things	0	1	2	3
2.	Feeling down, depressed, or hopeless	0	1	2	3
3.	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4.	Feeling tired or having little energy	0	1	2	3
5.	Poor appetite or overeating	0	1	2	3
6.	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7.	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8.	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9.	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

GERIATRIC DEPRESSION SCALE (GDS)

Table 6. 15-Item Geriatric Depression Scale

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life?	Yes/**No**
2. Have you dropped many of your activities and interests?	**Yes**/No
3. Do you feel that your life is empty?	**Yes**/No
4. Do you often get bored?	**Yes**/No
5. Are you in good spirits most of the time?	Yes/**No**
6. Are you afraid that something bad is going to happen to you?	**Yes**/No
7. Do you feel happy most of the time?	Yes/**No**
8. Do you often feel helpless?	**Yes**/No
9. Do you prefer to stay at home, rather than going out and doing new things?	**Yes**/No
10. Do you feel you have more problems with memory than most?	**Yes**/No
11. Do you think it is wonderful to be alive now?	Yes/**No**
12. Do you feel pretty worthless the way you are now?	**Yes**/No
13. Do you feel full of energy?	Yes/**No**
14. Do you feel that your situation is hopeless?	**Yes**/No
15. Do you think that most people are better off than you are?	**Yes**/No

Reprinted with permission from Sheikh JI, Yesavage JA. Geriatric Depression Scale (GDS): recent evidence and development of a shorter version. In: Brink TL, ed. Clinical Gerontology: A Guide to Assessment and Intervention. *London, United Kingdom: Taylor & Francis; 1986:170.*

Additional scoring information from http://www.stanford.edu/~yesavage/GDS.english.short.score.html: Answers in bold indicate depression. More than five of these answers suggests depression and warrants follow-up.

Dementia = Neurocognitive Disorder

Increased prevalence with age

30-50% undetected/undiagnosed in primary care

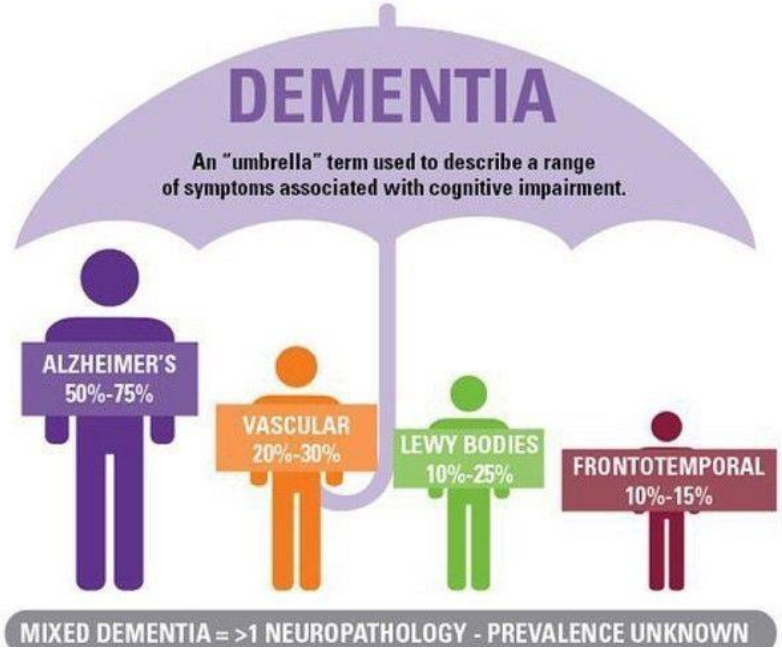
Cognitive decline sufficient to interfere with function

Personality and behavior often affected

Onset usually insidious

Clinical syndrome with different etiologies &

neuropathological changes



Brief Cognitive Testing

Cognitive screen is part of Medicare Annual Wellness exam

Components:

- Attention
- Memory (Registration, Immediate Recall, Delayed Recall)
- Orientation (Temporal/Time, Spatial/Place)
- Calculation
- Executive Judgement
- Visuospatial

No ideal/perfect test

- Scope
- Time
- Education
- Language/Culture

Become familiar with what is used in your health system and by others in the community

Mental Status Screening Tools

Commonly in use

- Mini-Cog – 3 word recall + clock draw
- MMSE – “gold standard”, proprietary, designed to detect dementia
- SLUMS – nonproprietary, used in VA
- MoCA – multiple forms, multiple languages, designed to detect MCI, free certification

Others (to be familiar with)

- RUDAS – minimize cultural bias
- CASI
- 3MS
- SPMSQ
- Brain Check – computer based
- Cog State – used in clinical trials

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.

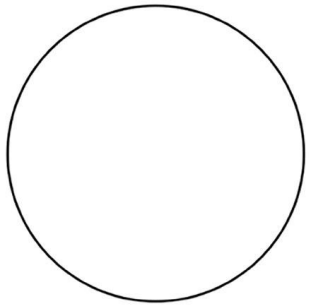
Step 3: Three Word Recall

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.

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

Clock Drawing

ID:_____ Date:_____



NAME :

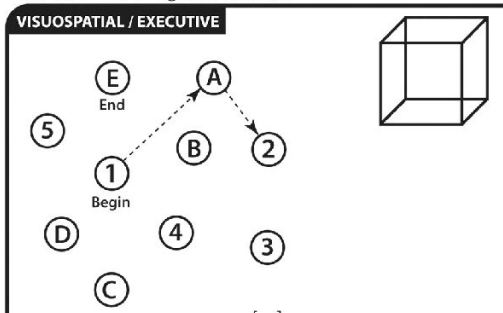
MONTREAL COGNITIVE ASSESSMENT (MOCA)

Version 7.1 Original Version

Education : Date of birth :

Sex : DATE :

VISUOSPATIAL / EXECUTIVE

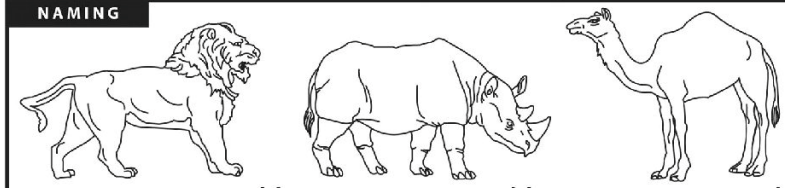


Copy cube [ ] [ ]

Draw CLOCK (Ten past eleven) (3 points) [ ] Contour [ ] Numbers [ ] Hands

POINTS ___/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 ___/2

Subject has to repeat them in the backward order [ ] 7 4 2

Read list of letters. The subject must tap with his hand at each letter A. No points 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 ___/3

4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt**

LANGUAGE Repeat : I only know that John is the one to help today. [ ] ___/2

The cat always hid under the couch when dogs were in the room. [ ]

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

Add 1 point if ≤ 12 yr edu

Administered by: _____

Multidisciplinary/Interprofessional Care is Best for Older Adults

Develop **Your** Geri-Team

- Primary care providers
- Specialty providers
- Dentists
- Pharmacists
- Audiologists
- Therapists – PT, OT, Speech
- Mental health – Psychologist, Marriage & Family Therapist, Counselor
- Social worker, case manager
- Nutrition/Dietician

Connect with community

- Long term care providers
- Social service organizations

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b. Medical Problems
c. Mobility
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