5 QUESTIONS ABOUT DEMENTIA

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1. What is dementia?

2. How does a doctor diagnose it?

3. How common is it?

4. What services will participants with dementia need?

5. How can early dementia be detected?

1. WHAT IS DEMENTIA?

Dementia Syndrome

- Onset in adulthood of

- Declines in 2 or more cognitive capacities

- That cause decline in daily function

- Normal level of consciousness and alertness

COMMON CAUSES OF DEMENTIA

- Alzheimer disease   66%
- Vascular dementia   15-20%
- Dementia with Lewy bodies   8-15%
- Fronto-temporal dementia   5%

2. HOW DOES A DOCTOR DIAGNOSE DEMENTIA?

Diagnostic Features of Alzheimer Disease

- **Slowly progressive dementia**

- **No other etiology identified:**
    non-contributory neurological examination, laboratory evaluation and brain imaging

- **Decline in memory plus either:**
    -aphasia (language)
    -apraxia (doing)
    -agnosia (perception and recognition)
    -dysexecutive function (conceptualizing, planning, starting, persisting, changing when appropriate, stopping, abstracting)

3 'Stages' of Alzheimer Disease

1. **Decline in memory**
   - **-personality change**
   - **-executive function impairment**

2. **Cortical phase**
   - **-aphasia**
   - **-apraxia**
   - **-agnosia**

3. **Physical Decline**
   - **-incontinence**
   - **-gait disorder**
   - **-swallowing/feeding**
   - **-muteness**
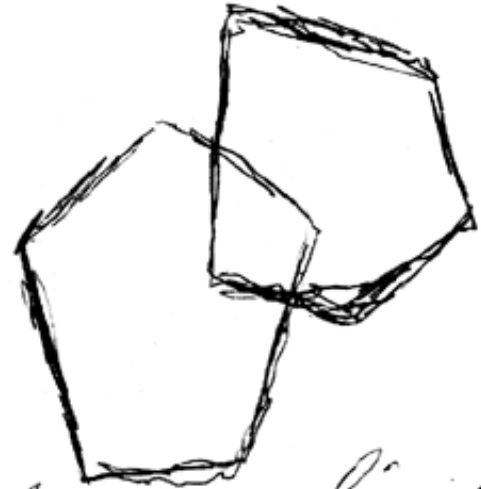
4. DIAGNOSIS

You are required to place a big time...
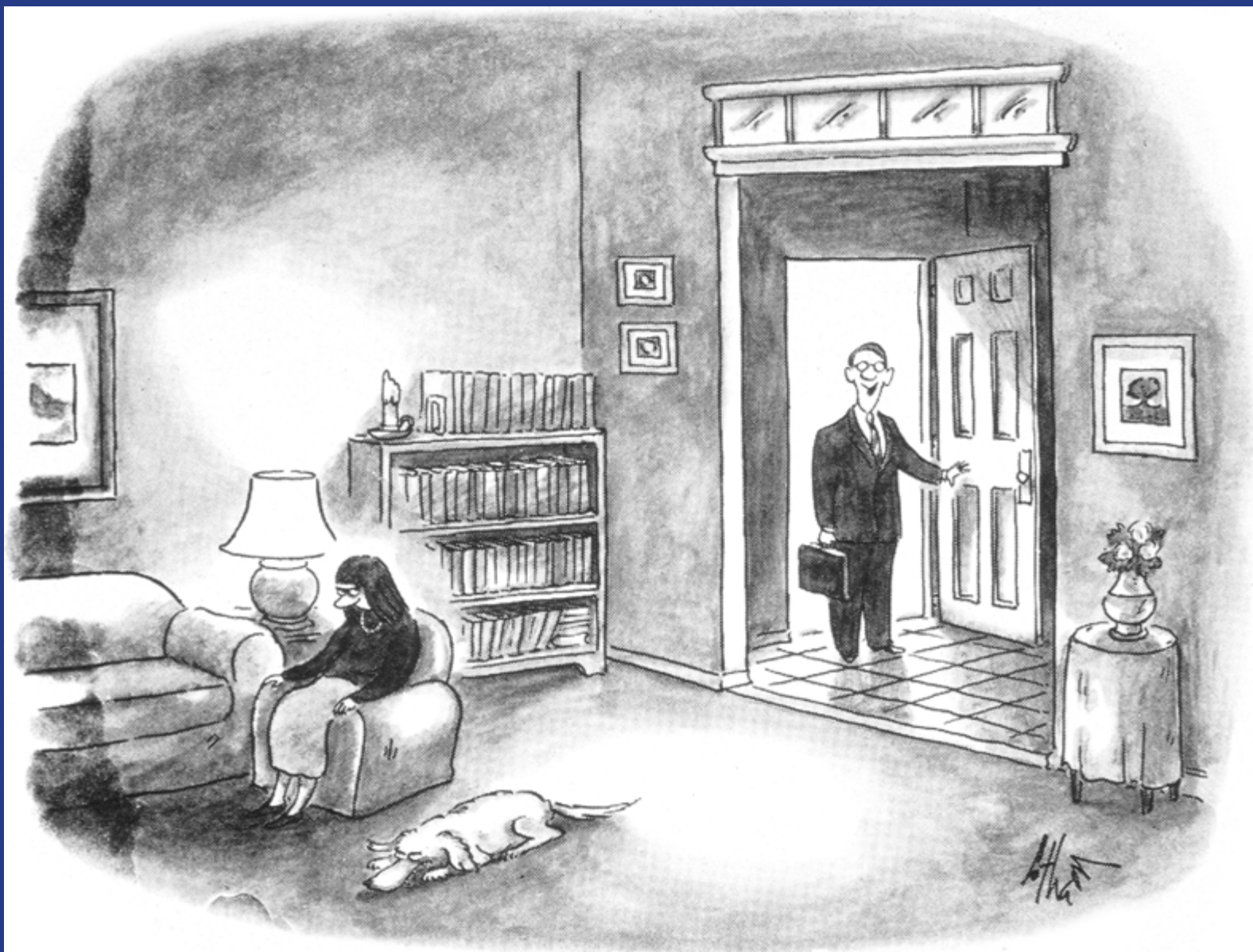
your writing

8.10.82

THE 4 A's OF ALZHEIMER DISEASE

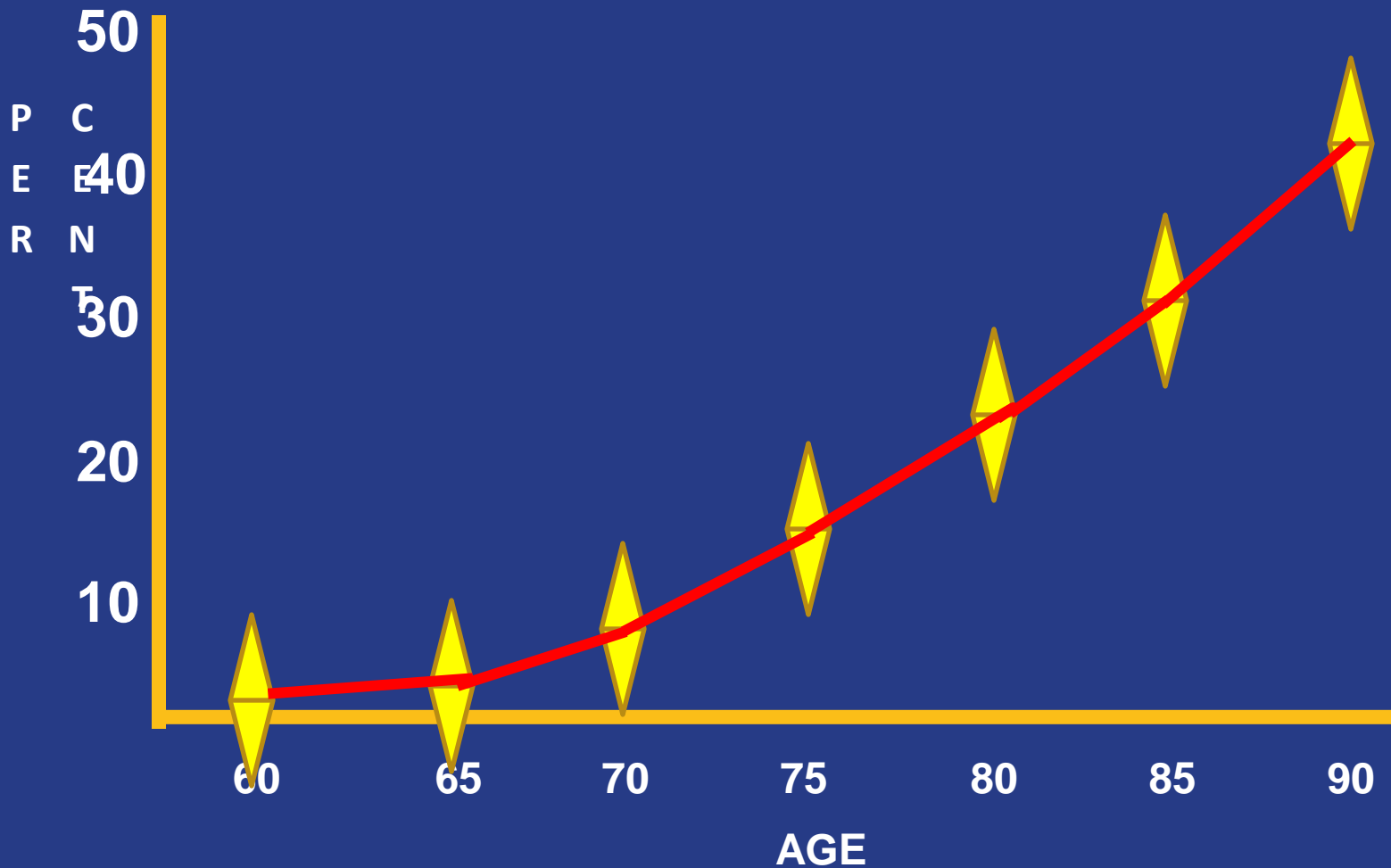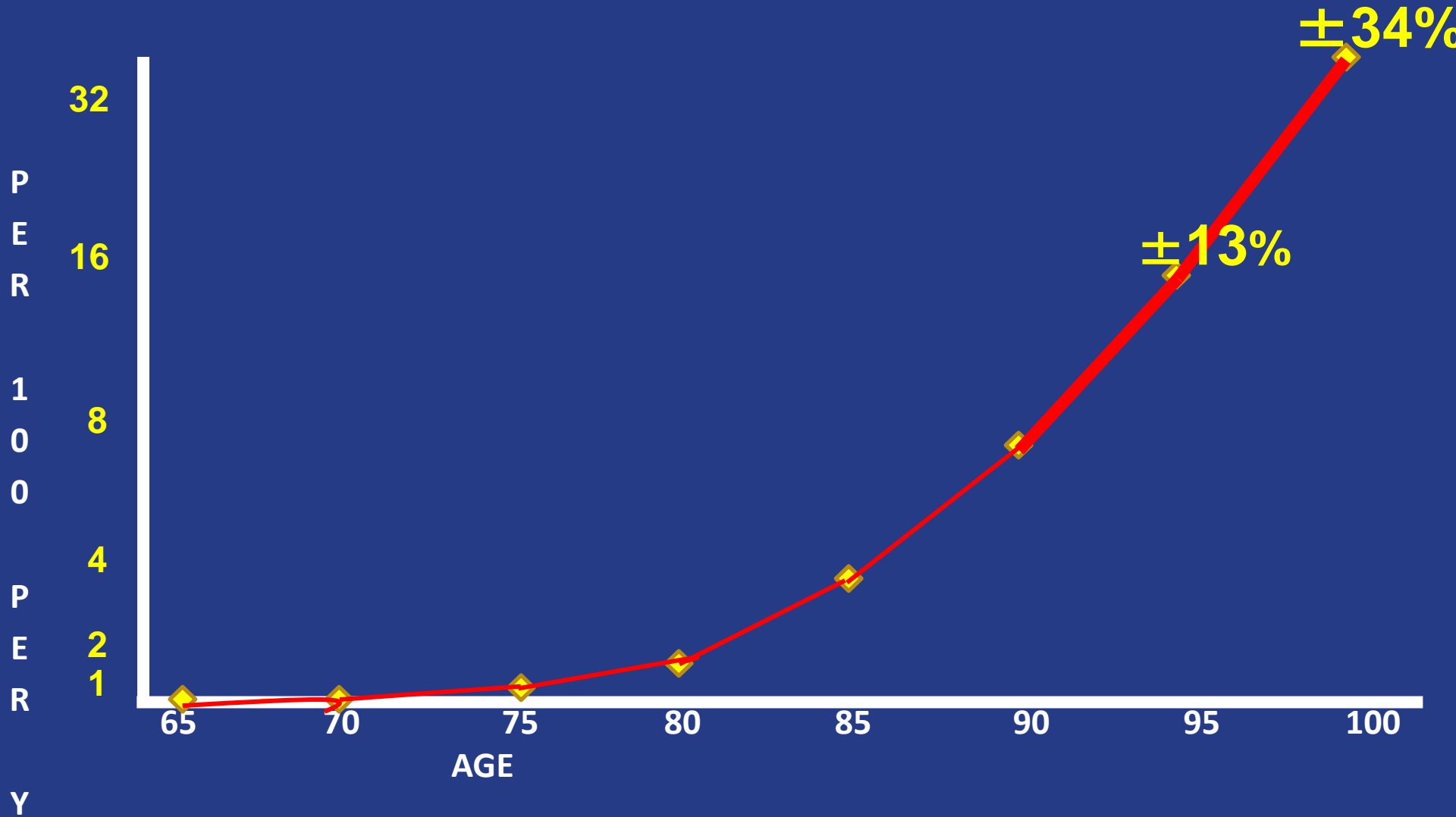|	IMPAIRMENT IN
AMNESIA	memory
APHASIA	language
APRAXIA	doing
AGNOSIA	recognition/perception

After McHugh and Folstein

"Honey, am I home?"

3. HOW COMMON IS DEMENTIA?

PREVALENCE OF DEMENTIA BY AGE

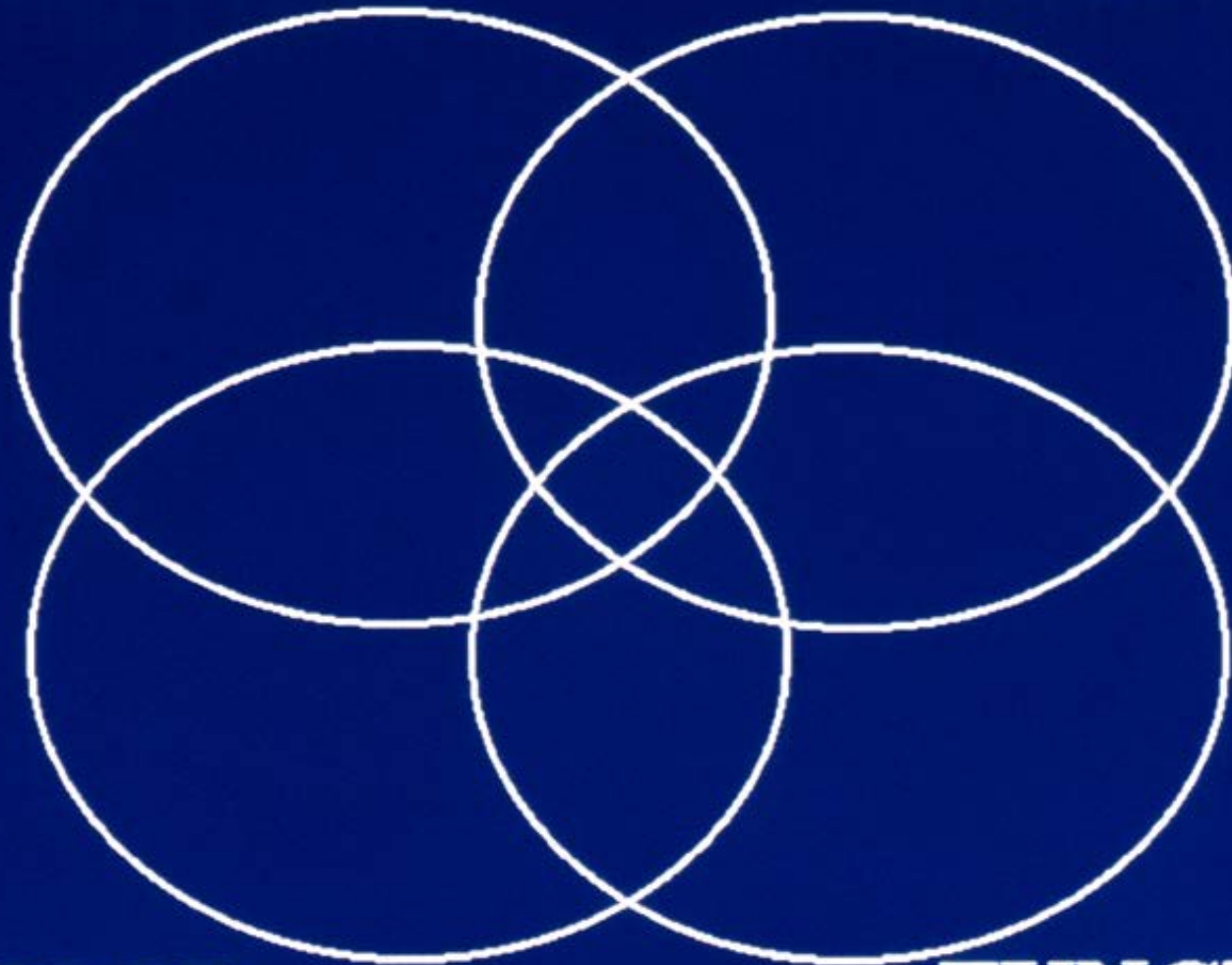# 4. WHAT SERVICES WILL PARTICIPANTS WITH DEMENTIA NEED?

TABLE 1.—BEHAVIOR PROBLEMS OF PATIENTS CITED BY FAMILIES

Behavior	No. of Families Responding*	Families Reporting Occurrence, No. (%)	Families Reporting Behavior to Be a Problem, No. (%)
Memory disturbance	55	55(100)	51(93)
Catastrophic reactions	52	45(87)	40(89)
Demanding/critical behavior	52	37(71)	27(73)
Night waking	54	37(69)	22(59)
Hiding things	51	35(69)	25(71)
Communication difficulties	50	34(68)	25(74)
Suspiciousness	52	33(63)	26(79)
Making accusations	53	32(60)	26(82)
Meals	55	33(60)	18(55)
Daytime wandering	51	30(59)	21(70)

*"Don't know" answers excluded.

TABLE 1.—BEHAVIOR PROBLEMS OF PATIENTS CITED BY FAMILIES

Behavior	No. of Families Responding*	Families Reporting Occurrence, No. (%)	Families Reporting Behavior to Be a Problem, No. (%)
Bathing	51	27(53)	20(74)
Hallucinations	49	24(49)	16(42)
Delusions	49	23(47)	19(83)
Physical violence	51	24(47)	22(94)
Incontinence	53	21(40)	18(86)
Cooking	54	18(33)	8(44)
Hitting	50	16(32)	13(81)
Driving	55	11(20)	8(73)
Smoking	53	6(11)	4(67)
Inappropriate sexual behavior	51	1(2)	0(0)

*"Don't know" answers excluded.

Frequency of NPI Disturbance by Cache County Study
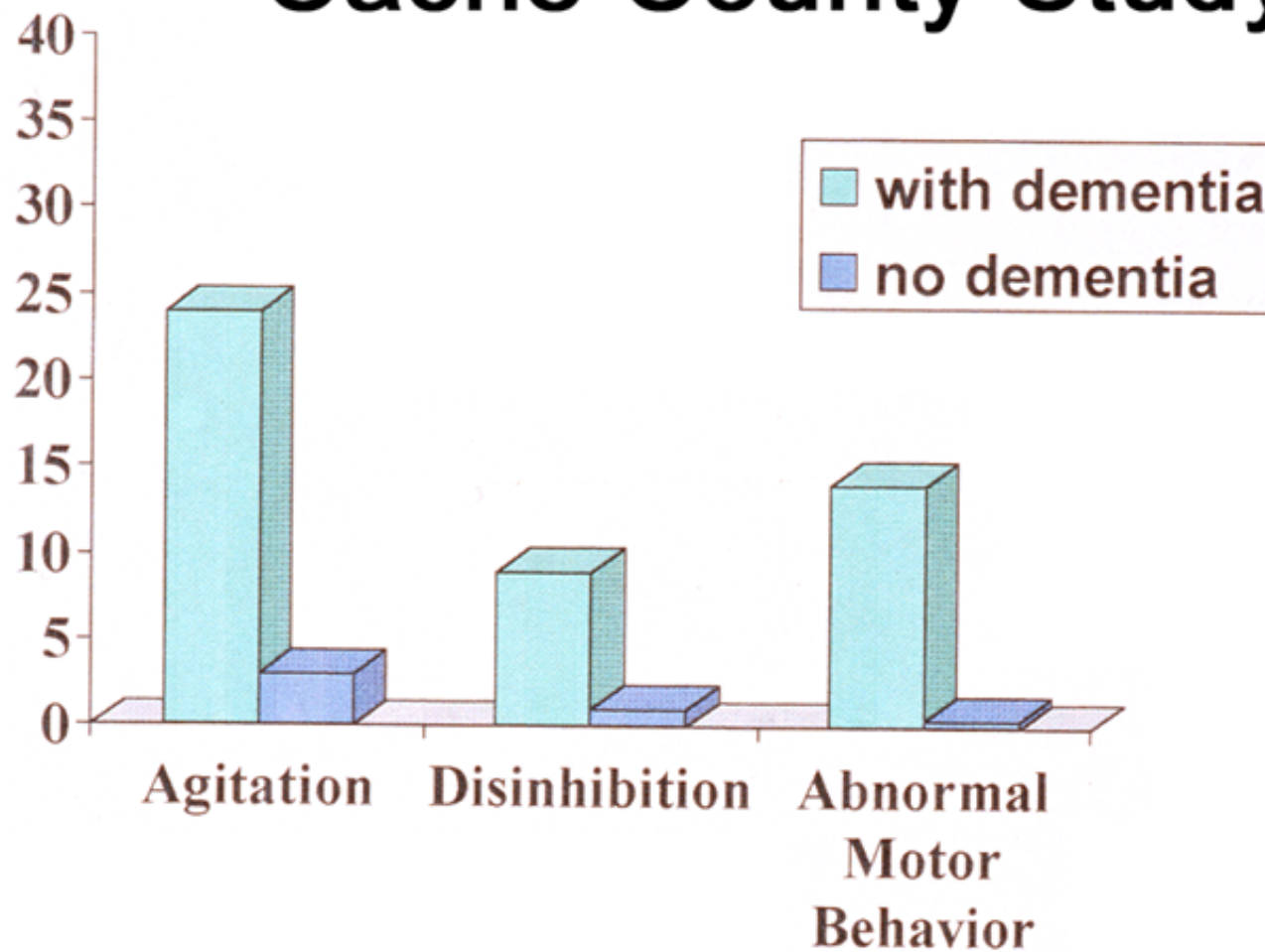
Lyketsos (2000)

Frequency of NPI Disturbance by Cache County Study
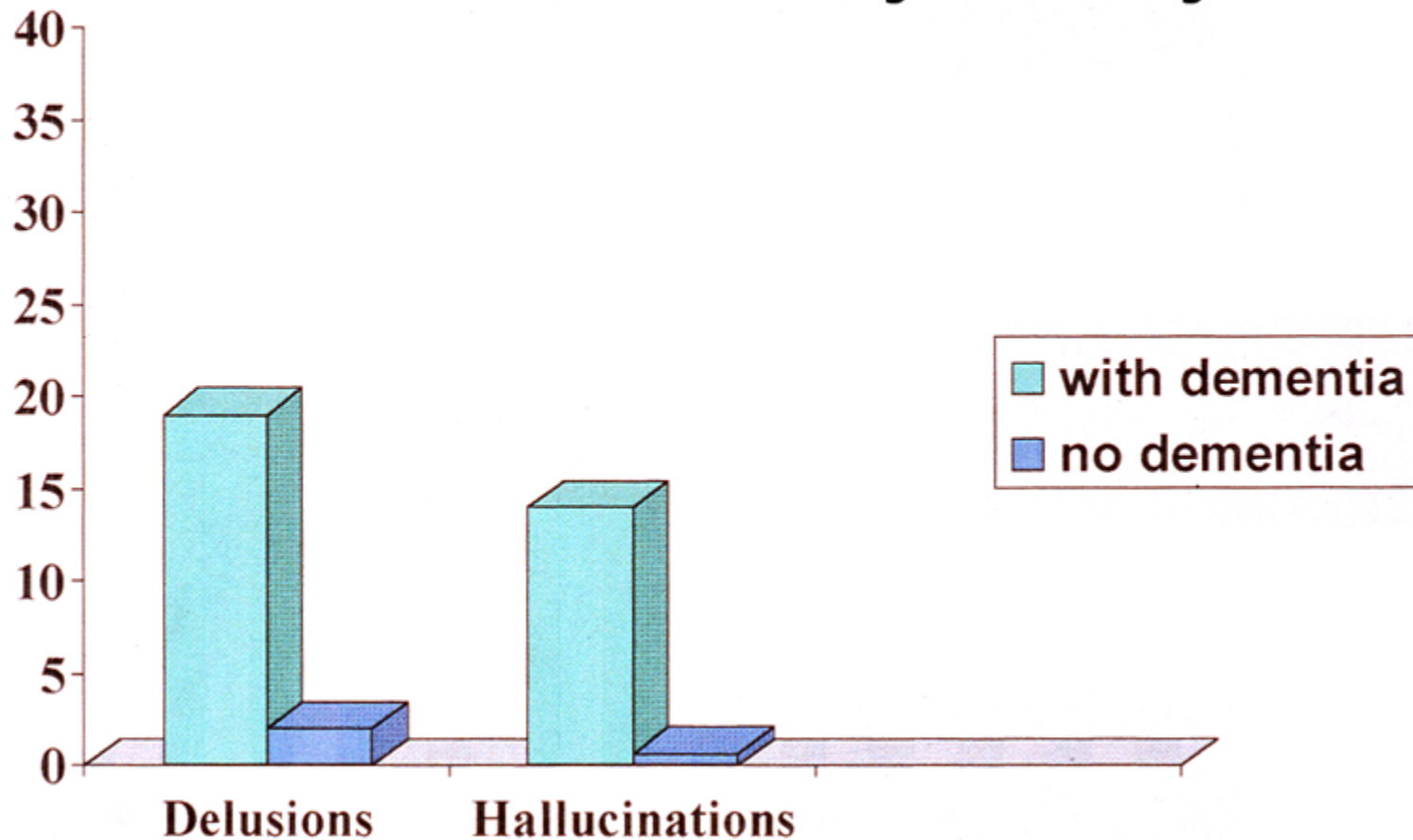
Lyketsos (2000)
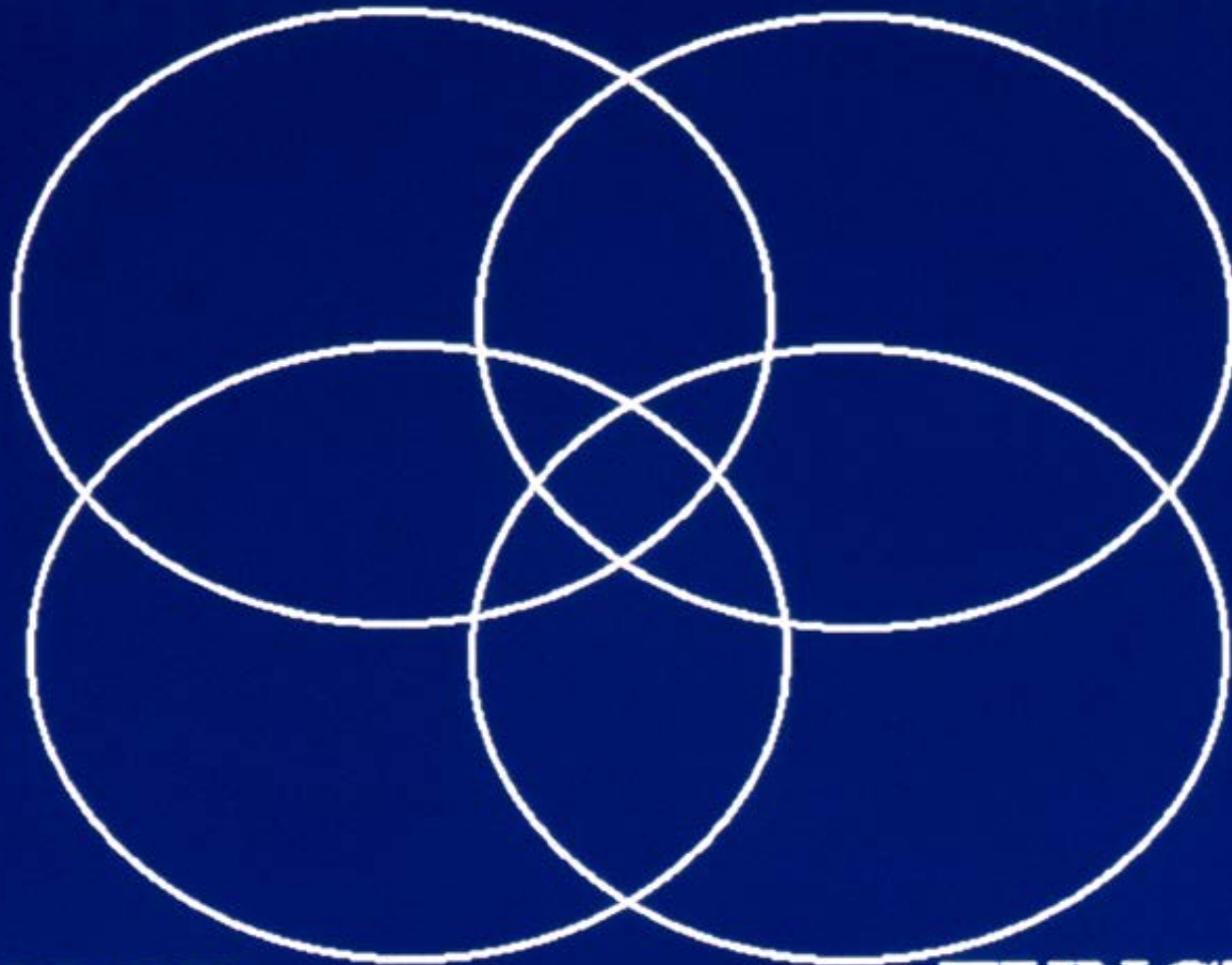
Newsweek

December 18, 1989 : $2.00

All About
Alzheimer's

What Doctors Know ■ How Families Cope

4. WHAT SERVICES WILL PARTICIPANTS WITH DEMENTIA AND THEIR CAREGIVERS NEED?

Problems Caregivers Cite for Themselves (n=55)

	No.	%
Chronic fatigue, anger depression	48	87
Family conflict	31	58
Loss of friends and hobbies, no time for self	30	56
Worry that caregiver will become ill	17	31
Difficulties assuming new roles responsibilities	6	29
Guilt	14	25
None	4	7

- Rates of emotional distress and demoralization among caregivers are 2-3 times higher than similar non-caregivers

- Nonetheless, the majority of caregivers report they are relatively well emotionally

- More than 50 studies demonstrate the benefits of caregiver interventions

WHAT WORKS?

- Education

  -about the disease

  -about symptom management

  -about their own needs

- Emotional support

  -talking helps

  -support groups help some

  -respite

  -self management: mindfullness, yoga, exercise,   socialization

Ideal System: A Continuum

home care — day care — nursing home
respite
in-home
outpatient
case management

WHAT ARE THE GOALS OF DEMENTIA CARE?

1. Maximizing the quality of life of the person with dementia

    -Maximizing their function

    -Adapting environment to their needs

    -Providing stimulation/activities appropriate to their ability and desire

    -Maximizing their dignity

2. Maximizing the quality of life of the caregiver(s)

    -Recognize their commitment

    -Recognize the challenges of caregiving

    -Recognize that expert input can solve or improve many of the challenges

YOU PROVIDE THE LEADERSHIP TO:

1. Maximizing the quality of life of the person with dementia

    -Maximizing their function

    -Adapting environment to their needs

    -Providing stimulation/activities appropriate to their ability and desire

    -Maximizing their dignity

2. Maximizing the quality of life of the caregiver(s)

    -Recognize their commitment

    -Recognize the challenges of caregiving

    -Recognize that expert input can solve or improve many of the challenges

5. HOW CAN EARLY DEMENTIA BE IDENTIFIED?

A GOOD TEST . . . . . .

1. Accurately identifies who *has* a disease and who *doesn't*

2. Answers 2 questions:
   - -(a) Of everyone who has the disease, how accurate is the test in detecting them (and conversely detecting those who do not) ["sensitivity and specificity"]
   - -(b) When the test is positive or negative, how accurate is that? ["predictive value"]

3. *BUT*, 'B' depends on the prevalence (frequency) of the disease and ('A') doesn't!!

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.

MONTREAL COGNITIVE ASSESSEMENT MoCA

MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

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

VISUOSPATIAL / EXECUTIVE

Copy cube

Draw CLOCK (Ten past eleven) (3 points)

POINTS

[ ]   [ ]   [ ] Contour   [ ] Numbers   [ ] Hands   __/5
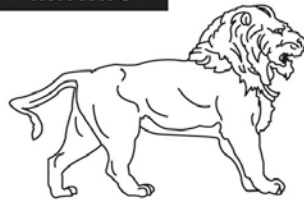
NAMING

[ ]   [ ]   [ ]   __/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	No points
1st trial						
2nd trial						

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 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
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

MONTREAL COGNITIVE ASSESSMENT (MOCA)
Version 7.1 Original Version

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

VISUOSPATIAL / EXECUTIVE	Copy cube	Draw CLOCK (Ten past eleven) (3 points)	POINTS

Ⓔ End
Ⓐ
⑤
Ⓑ ②
①
Begin
Ⓓ ④
③
Ⓒ

[ ]   [ ]   [ ]   [ ]   [ ]   ___/5
Contour   Numbers   Hands

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	No points
		1st trial						
		2nd trial						

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. [ ] 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

MONTREAL COGNITIVE ASSESSMENT (MOCA®)
Version 7.2 Alternative Version

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

VISUOSPATIAL / EXECUTIVE		POINTS

Copy rectangle

Draw CLOCK (Five past four)
(3 points)

Ⓒ Ⓓ
③
④ ⑤
Ⓑ
② ①
Begin
Ⓐ
Ⓔ
End

[ ]   [ ]
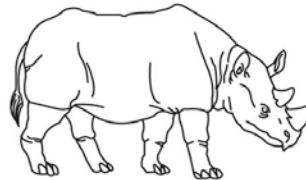
[ ]   [ ]   [ ]
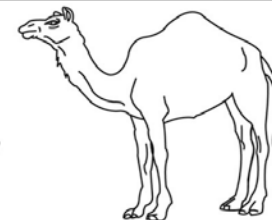Contour   Numbers   Hands

___/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.

		TRUCK	BANANA	VIOLIN	DESK	GREEN	No points
	1st trial						
	2nd trial						

ATTENTION

Read list of digits (1 digit/ sec.).

Subject has to repeat them in the forward order	[ ] 3 2 9 6 5	
Subject has to repeat them in the backward order	[ ] 8 5 2	___/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 90   [ ] 83   [ ] 76   [ ] 69   [ ] 62   [ ] 55   ___/3
4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt**

LANGUAGE

Repeat : A bird can fly into closed windows when it's dark and windy. [ ]
The caring grandmother sent groceries over a week ago. [ ]   ___/2

Fluency / Name maximum number of words in one minute that begin with the letter S   [ ] _____ (N ≥ 11 words)   ___/1

ABSTRACTION

Similarity between e.g. carrot - potato = vegetable. [ ] diamond - ruby   [ ] cannon - rifle   ___/2

DELAYED RECALL

		TRUCK	BANANA	VIOLIN	DESK	GREEN	Points for UNCUED recall only	
	Has to recall words **WITH NO CUE**	[ ]	[ ]	[ ]	[ ]	[ ]		___/5
Optional	Category cue							
	Multiple choice cue							

ORIENTATION

[ ] Date   [ ] Month   [ ] Year   [ ] Day   [ ] Place   [ ] City   ___/6

Adapted by : Z. Nasreddine MD, N. Phillips PhD, H. Chertkow MD
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Administered by : _____

Normal ≥ 26 / 30

TOTAL   ___/30
Add 1 point if ≤ 12 yr edu

A GOOD TEST . . . .

1. Accurately identifies who *has* a disease and who *doesn't*

2. Answers 2 questions:

    -(a) Of everyone who has the disease, how accurate is the test in detecting them (and conversely detecting those who do not) [MOCA BETTER (more "sensitive")]

    -(b) When the test is positive or negative, how accurate is that? [MOCA OVER IDENTIFIES, MINI-COG UNDERIDENTIFIES ("MoCA has worse positive predictive value while Mini-Cog has worse negative predictive value")]

3. Ease of administration

    -MINI-COG MUCH SHORTER TIME AND EASIER TO

I RECOMMEND

- MoCA before admission and yearly after 80

A JOHNS HOPKINS PRESS HEALTH BOOK

"The best guide of its kind."
Chicago Sun-Times

The 36-Hour Day

5th EDITION

A Family Guide to Caring for People Who Have Alzheimer Disease, Related Dementias, and Memory Loss

NANCY L. MACE, M.A., and
PETER V. RABINS, M.D., M.P.H.

PRACTICAL DEMENTIA CARE

Third Edition

Peter V. Rabins and Constantine G. Lyketsos with Cynthia Steele