



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

GERIATRIC MENTAL HEALTH AND MEDICATION TREATMENT

RUTH KOHEN

ASSOCIATE PROFESSOR

UW DEPARTMENT OF PSYCHIATRY

5-4-2017

GENERAL DISCLOSURES

The University of Washington School of Medicine also gratefully acknowledges receipt of educational grant support for this activity from the Washington State Legislature through the Safety-Net Hospital Assessment, working to expand access to psychiatric services throughout Washington State.

SPEAKER DISCLOSURES

✓ Any conflicts of interest?

Nope

OBJECTIVES

1. Differential diagnosis in the older patient with **cognitive complaints**.
2. Differential diagnosis of **neuropsychiatric symptoms** in the older patient (dementia vs. delirium vs. primary psychiatric disorder).
3. **Treatment** approach with older patients – what are the differences to younger patients?

...A TYPICAL DAY AT THE (MY) OFFICE

"Doc, my memory is going bad. I am worried I have Alzheimers."

What are the possibilities?


- Worried well
- Medical problem
- Psychiatric problem
- Dementia

STEP 1 – BRIEF COGNITIVE ASSESSMENT


MONTREAL COGNITIVE ASSESSMENT (MOCA)

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

VERBOSPATIAL / EXECUTIVE

Copy cube:  Draw CLOCK (Ten past eleven) (3 points)

NAMING



MEMORY

Read list of words, subject must repeat them. Do a task, do a task, do a task after 5 minutes.

FACE	VELVET	CHURCH	DADSY	RED
------	--------	--------	-------	-----

ATTENTION

Read list of digits (1-9) subject has to repeat them in the forward order [] 2 8 5 4 [] and in the backward order [] 7 4 2 []

LANGUAGE

Repeat: I enjoy that John is the one to help today []
 The cat always hid under the couch when dogs were in the room. []

ABSTRACTION

Similarity between e.g. banana - orange - fruit [] train - bicycle [] watch - ruler []

DELAYED RECALL

Read to read words WITH NO CUE: FACE VELVET CHURCH DADSY RED

ORIENTATION

[] Date [] Month [] Year [] Day [] Place [] City []

TOTAL _____ /30

Normal 26 / 30 Add 1 point if 65 yr old

MOCA

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)

SLUMS

VAMC SLUMS Examination

Department of Veterans Affairs

NAME: _____ AGE: _____
 Is patient alert? _____ 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?
 6. Please name as many animals as you can in one minute.
 7. What were the five objects I asked you to remember? 1 point for each 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.
 9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.
 10. Please place an X in the triangle.
 11. I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.

Scoring

High School Education	27-30	Normal	25-30
	21-26	MILD	20-24
	1-20	Severe	1-19

MMSE

Mini-Cog™ Instructions for Administration & Scoring

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).

Step 2: Clock Drawing

Say, "Now, 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."

Step 3: Three Word Recall

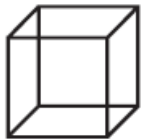
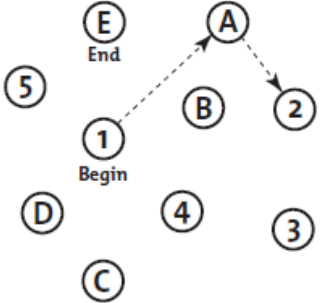

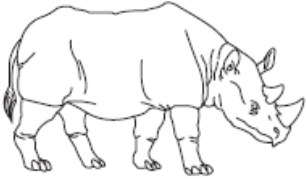
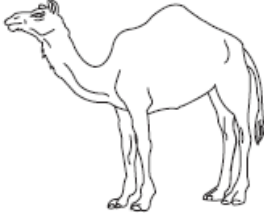
Ask the person to recall all three words you started in Step 1. Say, "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Scoring

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

Mini-Cog

- **MOCA** – best short test (20 minutes), includes a visual-spatial component
- **Mini-cog** – shortest test (3 minutes) for the hurried PCP, tells you “something is seriously wrong”, but false negative for mild cognitive change

VISUOSPATIAL / EXECUTIVE		 Copy cube <input type="checkbox"/>		Draw CLOCK (Ten past eleven) (3 points) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		POINTS ___/5	
		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Contour Numbers Hands			
NAMING							
 <input type="checkbox"/>		 <input type="checkbox"/>		 <input type="checkbox"/>		___/3	
MEMORY							
Read list of words, subject must repeat them. Do 2 trials. 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		<input type="checkbox"/> 2 1 8 5 4		Subject has to repeat them in the backward order		___/2	
Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors		<input type="checkbox"/> FBACMNAAJKLBAFAKDEAAAJAMOF AAB				___/1	
Serial 7 subtraction starting at 100		<input type="checkbox"/> 93	<input type="checkbox"/> 86	<input type="checkbox"/> 79	<input type="checkbox"/> 72	<input type="checkbox"/> 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. <input type="checkbox"/> The cat always hid under the couch when dogs were in the room. <input type="checkbox"/>							___/2
Fluency / Name maximum number of words in one minute that begin with the letter F		<input type="checkbox"/> _____ (N ≥ 11 words)				___/1	
ABSTRACTION							
Similarity between e.g. banana - orange = fruit		<input type="checkbox"/> train - bicycle	<input type="checkbox"/> watch - ruler				___/2
DELAYED RECALL							
Has to recall words WITH NO CUE		FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUEd recall only
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
Optional Category cue							
Multiple choice cue							
ORIENTATION							
<input type="checkbox"/> Date		<input type="checkbox"/> Month	<input type="checkbox"/> Year	<input type="checkbox"/> Day	<input type="checkbox"/> Place	<input type="checkbox"/> City	___/6
© Z.Nasreddine MD Version November 7, 2004 www.mocatest.org		Normal ≥ 26 / 30		TOTAL ___/30 Add 1 point if ≤ 12 yr edu			

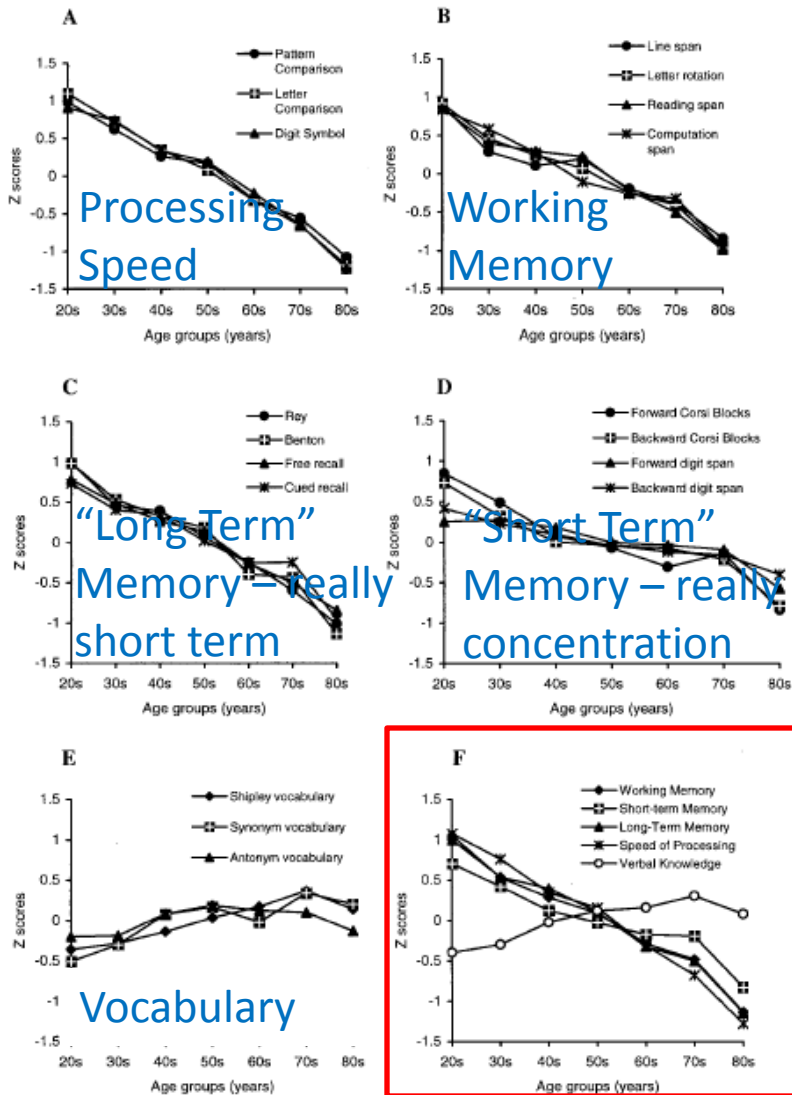
- Sum all subscores listed on the right-hand side. Add one point for an individual who has 12 years or fewer of formal education, for a possible maximum of 30 points.
- A final total score of 26 and above is considered normal.
- Ruth's rule: a good MOCA (20 min) gives you about 2/3 of the information of a 2-4 hour neuropsychological test battery.
- Information is not only contained in the absolute score, but also in the pattern of deficits.

65-year old man with a MOCA of 27...

"That's great, doc, but I am still not the man I used to be. My wife tells me I am forgetting things."

Why?

WHAT IS NORMAL AGING?



Most cognitive abilities decline linearly throughout the life span – two standard deviations of decline in processing speed and memory retrieval.

Summary

Models of Visuospatial and Verbal Memory Across the Adult Life Span, Park et al., Psychology and Aging 2002, Vol. 17, No. 2, 299–320

Figure 1. Life span performance measures. A: Speed of processing measures. B: Working memory measures (visuospatial and verbal). C: Long-term memory measures (visuospatial and verbal). D: Short-term memory measures (visuospatial and verbal). E: Knowledge-based verbal ability measures. F: A composite view of the aforementioned measures. Composite scores for each construct represent the z score of the average of all measures for that construct.

PRACTICAL IMPLICATIONS OF NORMAL AGE-RELATED COGNITIVE CHANGE:

- As (usually high-functioning) middle-aged patients become aware of age-related change, they may present with anxiety, depression, and concerns about dementia.
- Age-related cognitive change leads to a reduction in cognitive reserve, which *makes patients vulnerable to the cognitive impact of other medical or psychiatric conditions.*

- The majority of children with ADHD continue to have ADHD as adults.
- Some middle aged patients become symptomatic when they can no longer multitask rapidly.
- Patient present with depression, anxiety, feeling overwhelmed.

AGING + ADULT ADHD



We think of ADHD as a disease of children, but sometimes patients are first diagnosed in their 60s or 70s.

AGING + DEPRESSION

- Higher vulnerability to the cognitive impairment associated with depression, hence depressive “pseudodementia” – **BUT**: unless the patient is catatonically depressed, depression alone accounts for no more than ~4 points loss on the MOCA.
- “Scattered” deficits on an almost normal MOCA.

ABNORMAL MOCA...WHAT NOW?

- Rule out medical problems with “memory **labs**”: complete metabolic panel, CBC, B12, folate, TSH, HIV, syphilis.
- Review the timeline of change: very rapid deterioration suggests **delirium**, search for an underlying cause (e.g. UA).
- Review **medications**, stop anticholinergic medications (e.g. oxybutynin, benadryl), reduce sedating medications.
- Brain **MRI** in some cases - do if change has been rapid, diagnosis unclear, and a recent fall is possible (r/o subdural hematoma).
- (Neuropsychological testing)

DELIRIUM

Dementia

- Gradually and slowly progressive over months to years
- Minor fluctuations over the course of the day or weeks



Delirium

- Sudden onset – **anything sudden onset in an older person is delirium unless proven otherwise**
- More dramatic fluctuations
- Look for: recent medication change or acute illness.

“REVERSIBLE” CAUSES OF DEMENTIA

- Depression
- Hypothyroidism
- Medications
- General medical illness (e.g. B12 deficiency)
- Sleep apnea
- Sleep study – OSA does not have much effect on cognition
- D/C psychotropic medications (gabapentin, antidepressants, mood stabilizers, benzodiazepines, antipsychotics)



THE DEMENTIAS

- Alzheimer's disease
- Dementia with Lewy bodies
- Parkinson's disease dementia
- Vascular dementia
- Frontotemporal dementia

ALZHEIMER'S DISEASE – MOST COMMON

(1/3 OF PEOPLE OVER AGE 85)

Key presenting symptoms

- Strongly reduced ability to make new memories, leading to:
 1. Repeated identical questions
 2. Re-telling the same story multiple times
- Word finding difficulties
- Giving up prior activities (socializing, reading, house work, computer)

...often misdiagnosed as:

- **Depression**

Family members wonder about depression as the cause of social withdrawal or reduced engagement in activities.

- **Inattention**

Spouses complain about their husband/wife not listening to them.

ALZHEIMER'S DISEASE – MOST COMMON

(1/3 OF PEOPLE OVER AGE 85)

Key presenting symptoms

- Strongly **reduced ability to make new memories**, leading to:
 - Repeated identical questions
 - Re-telling the same story multiple times
- Word finding difficulties**
- Giving up prior activities (socializing, reading, house work, computer)

Typical MOCA pattern

MONTREAL COGNITIVE ASSESSMENT (MOCA)

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

VISUOSPATIAL / EXECUTIVE		Copy cube	Draw CLOCK (Ten past eleven) (3 points)	POINTS		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Contour <input type="checkbox"/> Numbers <input type="checkbox"/> Hands	___/5		
NAMING						
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	___/3
MEMORY						
Read list of words, subject must repeat them. Do 2 trials. 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
ABSTRACTIO						
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
Category cue						
Multiple choice cue						
Optional						
ORIENTATION						
[] Date [] Month [] Year [] Day [] Place [] City						___/6
TOTAL				___/30		
Add 1 point if ≤ 12 yr edu						

© Z. Nasreddine MD Version November 7, 2004 Normal ≥ 26 / 30 www.mocatest.org

DEMENTIA + PARKINSON'S

Lewy Body Dementia

- Dementia precedes the onset of Parkinson symptoms.
- Strongly **fluctuating symptoms** (DD – psychiatric/volitional)
- **REM sleep disturbance** (DD – nightmares)
- **Visual hallucinations** (DD – psychotic illness)
- More pronounced **visual-spatial deficits** than in “pure AD”.

Parkinson's Dementia

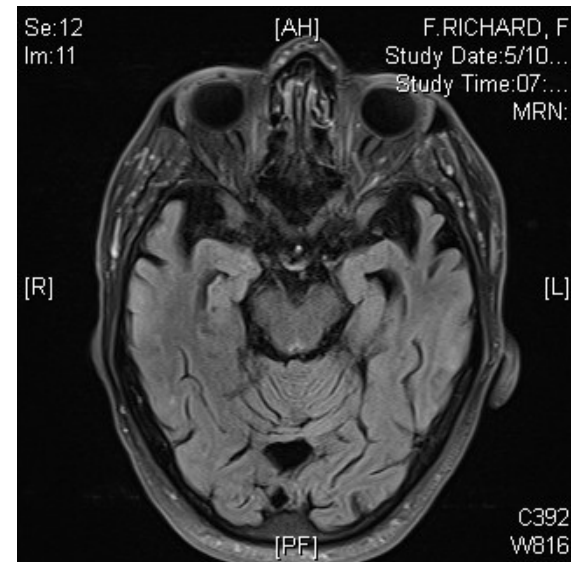
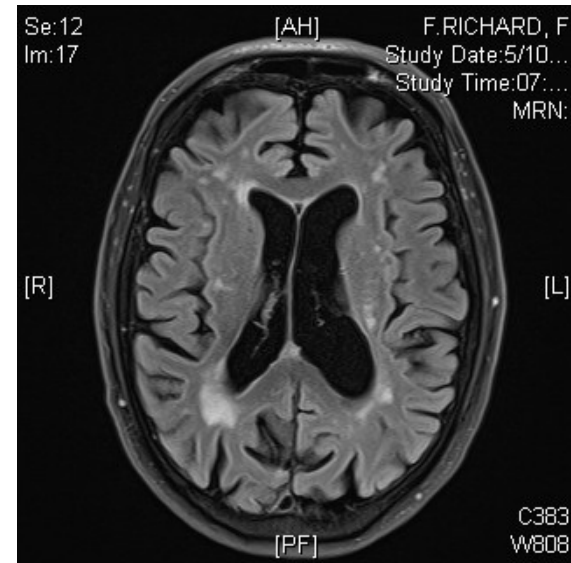
- Parkinson symptoms precede the onset of dementia.

BIZARRE VISUAL SYMPTOMS IN A MIDDLE-AGED OR OLDER PATIENT:

- Visual hallucinations – psychosis vs. dementia with Lewy bodies
- **Posterior cortical atrophy variant of Alzheimer's disease:** younger onset than regular AD, may present with visual symptoms such as **bizarre visual distortions, being unable to recognize objects, loss of ability to read - often misunderstood as eye problem or factitious disorder.** Visual-spatial difficulties on the MOCA.

VASCULAR DEMENTIA

- Destruction of brain tissue by cerebrovascular disease
- More varied presentation than Alzheimer disease – scattered deficits on the MOCA
- Often co-occurs with Alzheimer disease



FRONTOTEMPORAL DEMENTIA

- Can affect patients as young as age 35.
- **Behavioral variant** vs. progressive aphasia.
- Behavioral variant is **often misdiagnosed as bipolar disorder, personality disorder, depression**.
- Prominent symptoms (differ by patient): disinhibition, impulsivity, hyper-sexuality, change in food preference to sweet or salty snacks, loss of empathy, apathy, psychomotor slowing.
- Marked personality change usually precedes marked cognitive change.

NEUROPSYCHIATRIC SYMPTOMS OF DEMENTIA

- Depression
- Anxiety
- Apathy
- Delusions
- Hallucinations
- Psychosis
- Irritability
- Agitation
- Wandering
- Elation
- Sleep problems

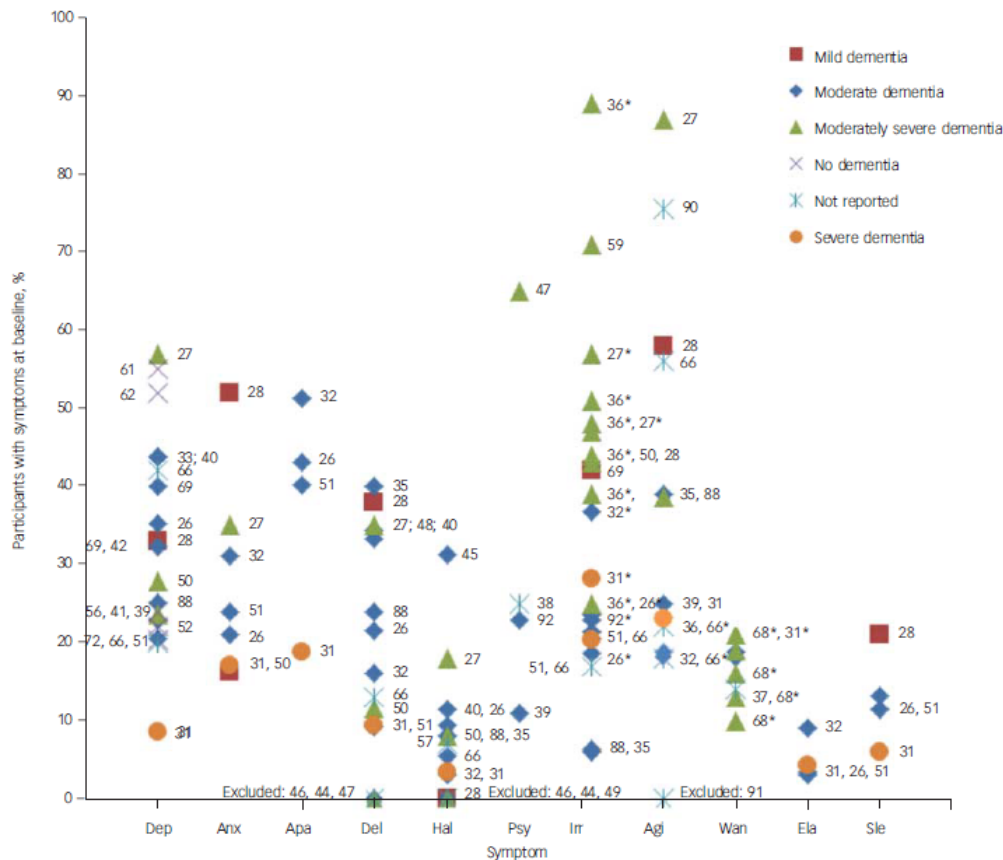


Fig. 1 Baseline prevalence of behavioural and psychological symptoms; see online Table DS2 for more details. Numbers are the reference numbers of the included studies. 'Excluded' indicates that the study excluded participants with a particular symptom at baseline (i.e. the prevalence was 0%). Twenty-six studies that did not report baseline prevalence or reported on a population already included in the figure are omitted. Dep, depression; Anx, anxiety; Apa, apathy; Del, delusions; Hal, hallucinations; Psy, psychosis; Irr, irritability; Agt, agitation; Wan, wandering; Ela, elation; Sle, sleep problems. *Subsymptom reported separately.

Rianne M. van der Linde, Tom Dening, Blossom C. M. Stephan, A. Matthew Prina, Elizabeth Evans and Carol Brayne. Longitudinal course of behavioural and psychological symptoms of dementia: systematic review. *The British Journal of Psychiatry* (2016)209, 366–377

TREATMENT OPTIONS

Cognitive symptoms

- Cholinesterase inhibitors (e.g. donepezil, rivastigmine patch): AD, dementia with Lewy bodies
- Memantine: moderate to advanced AD

Behavioral symptoms

- **Antidepressants**
- **Antipsychotics** (low dose quetiapine, risperidone – cost is an issue; risk of increased mortality in older patient with dementia)
- **Prazosin** for agitation (up to 8 mg in divided doses)
- Mood stabilizers (e.g. lamotrigine, depakote)

HOW IS MEDICATION MANAGEMENT DIFFERENT IN THE OLDER PATIENT?

- Avoid **benzodiazepines** if possible – risk of worsening confusion and agitation, risk of falls.
- Reduce **anticholinergic** load (Beers list).
- Check all older patients on SSRIs for **hyponatremia** (q 6 months).
- Risk of **QT prolongation** (citalopram).
- Much higher prevalence of **sexual side effects on SSRIs** and SNRIs (use mirtazapine or bupropion, possibly vilazodone, in older men,).
- Consider impaired clearance due to kidney or liver disease.

ELEMENTS OF CARE IN DEMENTIA

- Involvement of care giver(s): screening for caregiver burden and/or depression – training of care givers in behavioral interventions
- Ties to community agencies for additional support (e.g. Alzheimer's Association)
- Care is more challenging (NPS are often treatment-resistant)
- More limited psychotherapeutic approaches (behavioral activation, pleasant events)

CARE PARTNER INVOLVEMENT

- Education about cognitive impairment
- Psychological assessment of the care partner and referral to psychiatric care as needed
- Referral to community support
<http://www.alz.org/>, <http://www.theaftd.org/>
- Teaching care partners about realistic expectations, good communication, problem solving, and pleasant events