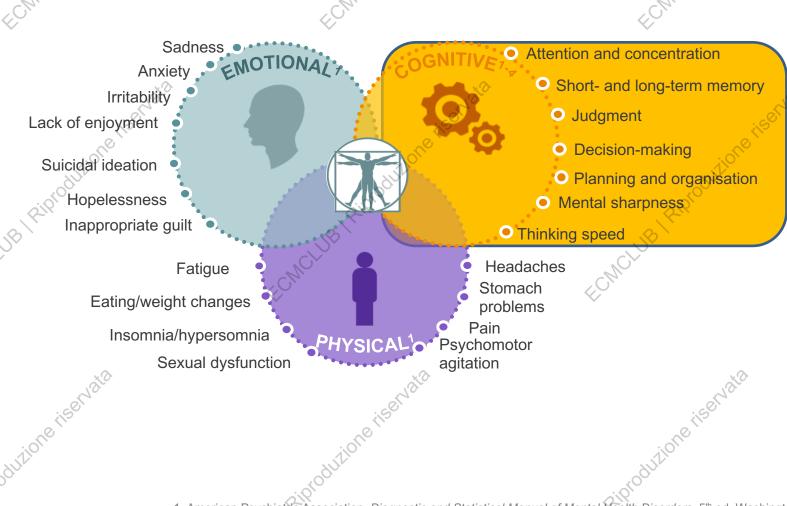
Anedonia e invecchiamento nel paziente con depressione

Il paziente anziano con depressione: sintomi, trattamento e strategie di switch

**Umberto Albert** 



### Depression is a clinically heterogeneous disorder



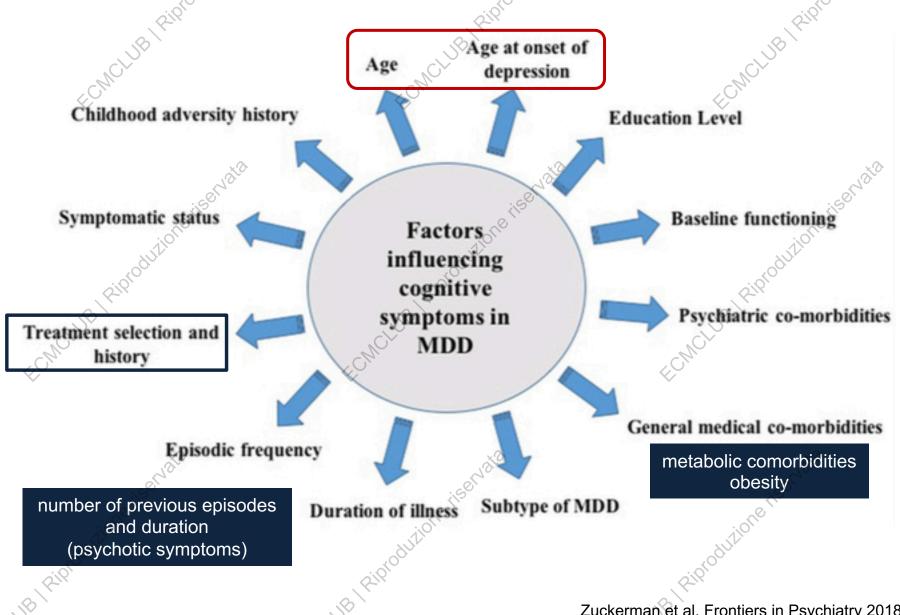
1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Health Disorders*. 5<sup>th</sup> ed. Washington, DC: American Psychiatric Association; 2013; 2. Marazziti D et al. *Eur J Pharmacol* 2010;626(1):83–86; 3. Hammar A, Ardal G. *Front Hum Neurosci* 2009;3:26. doi: 10.3389/neuro.09.026.2009; 4. Fehnel SE et al. *CNS Spectr* 2013;21:43–52.

### what is cognition?

0		
representative cognitive domains	what is it?	real-world example
attention/vigilance	responding correctly to targets while not responding to distractors during a series of rapidly presented stimuli	being able to read a book or pay attention to a movie
working memory	maintaining and manipulating information in mind for brief (approximately 5 to 20 seconds) periods of time	remembering a phone number just given to you
verbal learning and memory	remembering verbal information over longer periods of time (minutes to years)	remembering the items someone told you to purchase at the supermarket
visual learning and memory	remembering visual information over longer periods of time (minutes to years)	remembering where you put something in a closet
reasoning and problem solving	the ability to apply strategies effectively	arriving on time for work even though your bus schedule has changed
speed of processing	responding quickly and accurately when executing relatively simple tasks	using a touchscreen computer to serve customers at a fast food restaurant
social cognition	effectively processing social information, such as facial expressions and emotions and the meaning of social interactions	knowing by looking at someone whether they are angry at you or not; being able to take someone else's perspective in a conversation

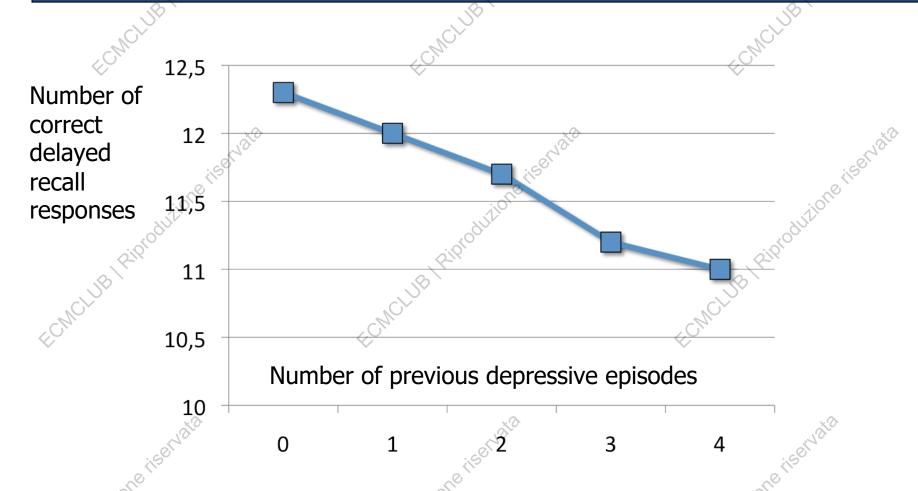


Factors that influence cognitive symptoms in Major Depressive Disorder (MDD)



Zuckerman et al. Frontiers in Psychiatry 2018

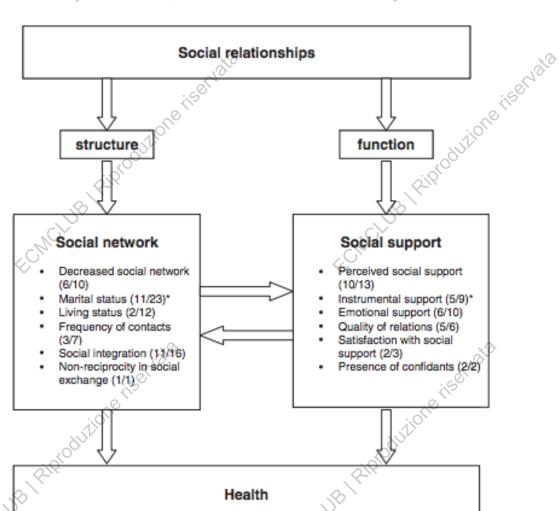
# Verbal memory as a function of the number of depressive episodes



Gorwood et al. <u>Toxic effects of depression on brain function</u>: impairment of delayed recall and the cumulative length of depressive disorder in a large sample of depressed outpatients. Am J Psychiatry 2008; 165: 731-9

## Social relations and depression in late life—A systematic review

Social relations and depression in late life



Schwarzbach et al. Int J Geriatr Psychiatry 2014 29: 1–21

### Signs and Symptoms of Late-Life Depression

#### Behavioral symptoms

- Withdrawal from once-pleasurable activities
- Socially withdrawing from enjoyed gatherings and friendships
- Preferring to be left alone
- Pacing or fidgeting
- Extreme tearfulness
- Decreased ability to care for self

#### Physical symptoms.

- Significant change in appetite or weight
- Psychomotor retardation
- Physical pains without any discernable reason
- Gastrointestinal symptoms
- Headaches
- Multiple diffuse symptoms
- Insomnia or hypersomnia
- Fatigue or reduction in energy
- Changes in the structure and functioning of the brain

#### Psychosocial symptoms:

- Sadness
- Increased irritability
- Agitation
- Anxiety
- Anger
- Feeling hopeless
- Increased anxiety
- Inappropriate feelings of guilt

#### Cognitive symptoms.

- Thoughts of death or suicide
- Decreased ability to think clearly
- Indecisiveness
- Increased memory problems
- Memory loss



### Assessment and treatment of major depression in older adults

CHARLES F. REYNOLDS III1\*, ERIC LENZE2, AND BENOIT H. MULSANT3

Late-life depression	other conditions
loss of pleasure (anhedonia)	apathy of dementia or other neurologic conditions.
Loss of appetite or weight	concurrent physical illness or with dementia
Sleep disturbances, such as insomnia	chronic pain many other physical illnesses, including breathing-related sleep disorders such as obstructive sleep apnea
Psychomotor retardation	neurologic illnesses (Parkinson's disease, stroke, etc.)
inability to think, concentrate, or to make decisions	neurologic illnesses
Worthlessness and thoughts of death	terminal illnesses

Handbook of Clinical Neurology, Vol. 167 (3rd series)
Geriatric Neurology
S.T. DeKosky and S. Asthana, Editors
https://doi.org/10.1016/B978-0-12-804766-8.00023-6
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Table 3 Differential diagnosis: late-life depression versus dementia

	Late-life depression	Dementia
Onset	Slow or acute	Slow and progressive onset
Evolution	Chronological order of events can be recalled	History of the disease cannot be restored by the patient
Quality of life (as experienced by	Decreased	The patient does not experience his/her disease as a
the patient)	alle	problem
Memory	Decreased ability to think or concentrate or being	Decreased
S Riprodu	slowed down	Impaired ability to learn new information or to recall
	Rill.	previously learned information
	S. C.	Patient tries to hide cognitive problems
Language and praxis	Normal	Decreased
Affect	Apathetic, depressed mood, psychomotor retardation	Lability of affect
Somatic	Sleep disturbances	Can be present, but will not be chief complaint
	Somatic problems (insomnia, dizziness, pain, etc.)	¥
	Low energy	
	Diurnal mood variation	
Prognosis	Treatable	Irreversible

Van Damme et al. Late-life depression: issues for the general practitioner. International Journal of General Medicine 2018:11 113–120

# Late-life depression and cognitive impairment: heterogeneous group of disorders

birth		CINB,	late-life
FC/M		ECINA.	*CM
early-onset depression	increasing <i>N</i> and length of	MDE + cognitive impairment	Verbal learning & memory
•	episodes (psychotic)	iseluata.	Cortisol toxicity Hippocampal shrinking
depression and	ageing	MDE + cognitive impairment	visuospatial learning attention executive functions
ECHCLIB	&S	Late-onset depression (vascular depression?)	Verbal learning & memory Information processing speed Executive functions (some aspects)
ioneriserve	Ç <sup>©</sup>	ione iservata	White matter hyperintensities Disruption of frontal-subcortical circuitry





1. Come risponde la depressione dell'anziano agli antidepressivi?

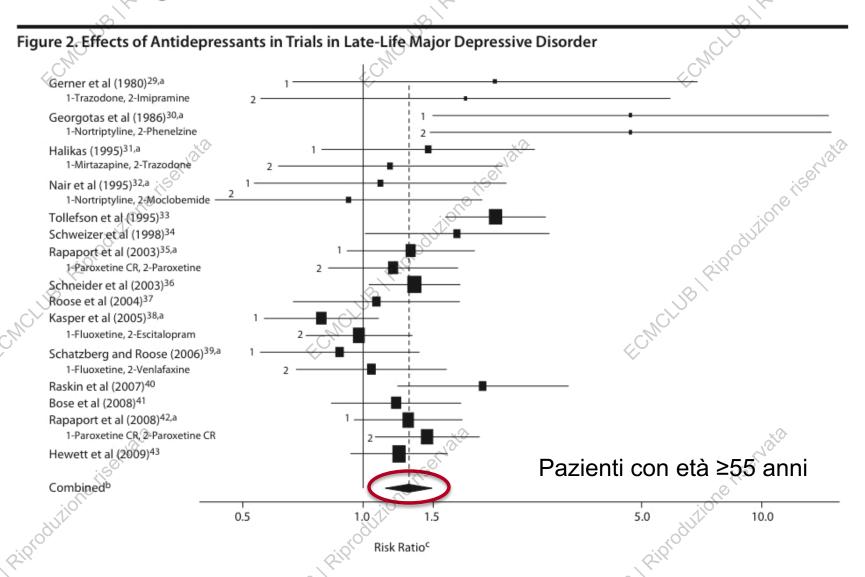
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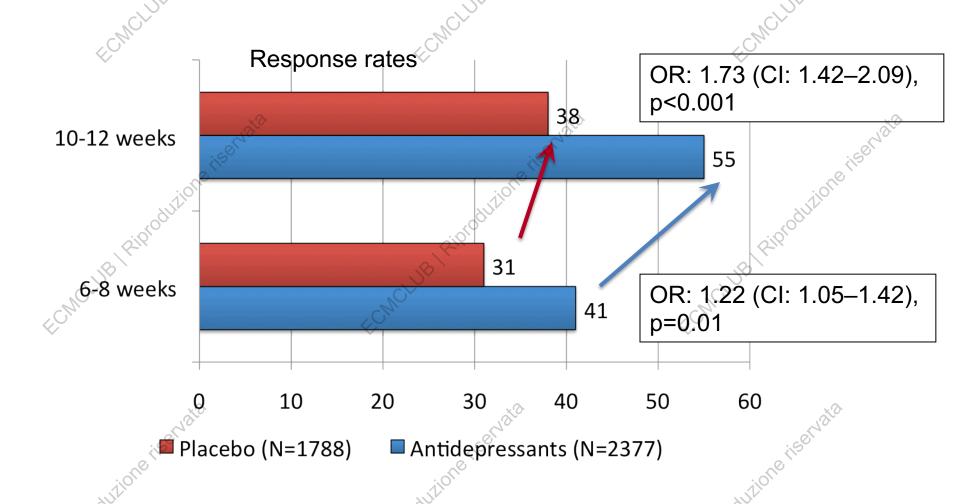
UNIVERSITÀ DEGLI STUDI DI TRIESTE

# Efficacy of Antidepressants for Late-Life Depression: A Meta-Analysis and Meta-Regression of Placebo-Controlled Randomized Trials



Tedeschini et al. J Clin Psychiatry 2011;72(12):1660-1668

# Efficacy of Second Generation Antidepressants in Late-Life Depression: A Meta-Analysis of the Evidence



### Trattamento della depressione nell'anziano

- 1. Come risponde la depressione dell'anziano agli antidepressivi?
- 2. Trattamento farmacologico: quali antidepressivi?

Disfunzioni cognitive come evento avverso degli antidepressivi?



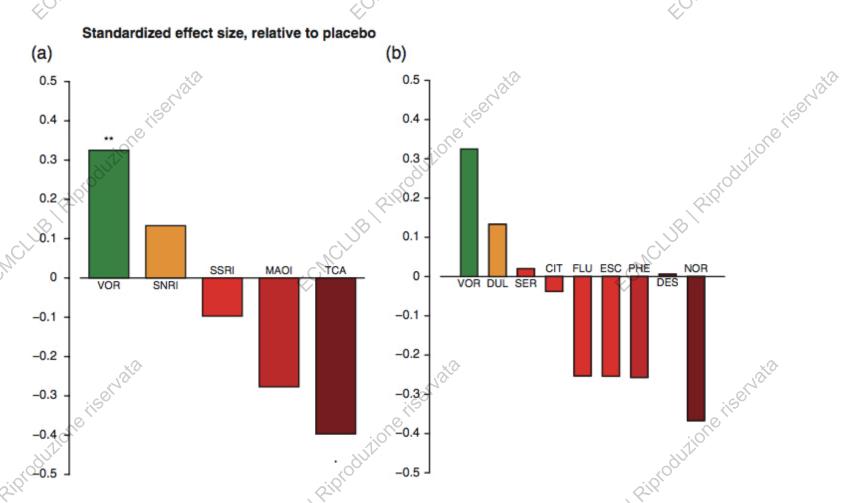
### Cognition in Late Life Depression: Treatment Considerations

Aaron M. Koenig, MD<sup>1</sup> and Meryl A. Butters, PhD<sup>1</sup>

- When selecting antidepressant medications, the clinician should be aware that certain agents have the potential to impair cognition (such as agents with anticholinergic or sedative properties).
- Tricyclic antidepressants (TCAs) have anticholinergic properties that impair cognition, and their use should be avoided in older adults, whenever possible [29] [Class IV]. Particularly challenging TCAs include amitriptyline, desipramine, imipramine, and nortriptyline.
- Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin—
  Norepinephrine Reuptake Inhibitors (SNRIs) are generally better tolerated than TCAs [30] and are associated with fewer cognitive side effects.
- Whenever possible, psychotropic polypharmacy should be avoided in older adults, to minimize the potential for drug-drug interactions, compliance errors, and overall side effect burden [31].

Curr Treat Options Psychiatry. 2014; 1(1): 1–14.

A Network Meta-Analysis Comparing Effects of Various Antidepressant Classes on the Digit Symbol Substitution Test (DSST) as a Measure of Cognitive Dysfunction in Patients with Major Depressive Disorder

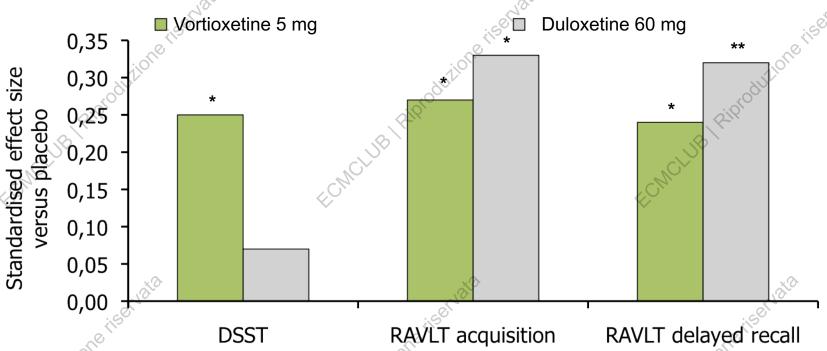


Baune et al. Int J Neuropsychopharmacol 2018; 21(2): 97–107

# Vortioxetine improved cognitive performance in elderly patients with depression

### Improvement from baseline compared with placebo at Week 8 in patients ≥65 years

DSST and RAVLT exploratory endpoints FAS, ANCOVA, Cohen's *d* \**p*<0.05, \*\**p*<0.01 vs placebo; nominal *p*-values; n numbers are APTS



Duloxetine was included as active reference for study validation, not for comparison of effect sizes.

ANCOVA, analysis of covariance; APTS, all patients treated set; DSST, Digit Symbol Substitution Test; FAS, full analysis set;

RAVLT, Rey Auditory Verbal Learning Test.

# Behavioural activation for depression in older people: systematic review and meta-analysis

The British Journal of Psychiatry (2017) 211, 274–279. doi: 10.1192/bjp.bp.117.205021

Vasiliki Orgeta, Janina Brede and Gill Livingston

CHCY						NC		
FCW.	Intervention	n	С	ontrol	</th <th></th> <th>SMD</th> <th>SMD</th>		SMD	SMD
<b>V</b>	Mean (s.d.)	Total	Mear	(s.d.)	Total	Weight, 9	% IV, random, 95% CI	IV, random, 95% CI
Older people with depression	diagnosis							
Gallagher & Thompson (1982)	8.26 (6.52)	10	11.11	(7.15)	10	12.6	-0.40(-1.29, 0.49)	-
Thomspon & Gallagher (1984) <sup>2</sup>	21 11.63 (7.67)	18	16.67	(4.9)	9	14.6	-0.71 (21.53, 0.12)	- Walte
Subtotal (95% CI)	:501	28			19	27.2	-0.56 (-1.17, 0.04)	• :S
Heterogeneity: $\tau^2 = 0.00$ ; $\chi^2 \Rightarrow 0$	).25, d.f. = 1 (P =	0.62);	$I^2 = 0\%$	5			O CO	
Test for overall effect: Z 1.83	B(P = 0.07)						ion	jost
Older people with depressive	symptoms					160	Š.V.	aduir
Cernin & Lichtenberg (2009)22	8.9 (5)	8	12.7	6.5	7	2.1	-0.62(-1.67, 0.42)	-
Gallagher & Thompson (1992)	8.26 (6.52)	10	11.1	7.15	10	12.6	-0.40(-1.29, 0.49)	<u> </u>
Moss et al (2012) <sup>23</sup>	5.46 (4.96)	10	10.85	4.96	33	12.6	-1.05 (-1.94, -0.16)	\ <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>
Scogin et al (1989) <sup>24</sup>	9.7 (5.7)	20	15.9	6.9	21	23.5	-0.96 (-1.61, -0.31)	
Thompson & Gallagher (1984)	21 11.63 (7.67)	20	16.67	4.9	9	15.1	-0.70 (-1.51, 0.11)	
Subtotal (95% CI)		68			60	72.8	-0.78 (-1.15, -0.41)	× •
Heterogeneity: $\tau^2 = 0.00$ ; $\chi^2 = 1.47$ , d.f. = 4 ( $P = 0.83$ ); $I^2 = 0\%$								
Test for overall effect: $Z = 4.15$	(P < 0.0001)							
Total (95% CI)		96			79	100.0	-0.72(-1.04, -0.41)	<b>♦</b>   ]
Heterogeneity: $\tau^2 = 0.00$ ; $\chi^2 = 2$	2.08, d.f. = 6 (P =	0.91);	$I^2 = 0\%$	5			- Nico	
Test for overall effect $Z = 4.50$	(P << 0.001)					-0		-4 -2 0 2 4
Test for subgroup differences:	$\chi^2 = 0.36$ , d.f. =	= 1 (P =	= 0.55);	$I^2 = 0\%$		ils		Favours intervention avours control

**Fig. 2** Forest plot of behavioural activation (all forms) *v.* treatment as usual for older people living in the community with a diagnosis of depression or depressive symptoms. Outcome: depressive symptoms (4–12 weeks). SMD, standardised mean difference.