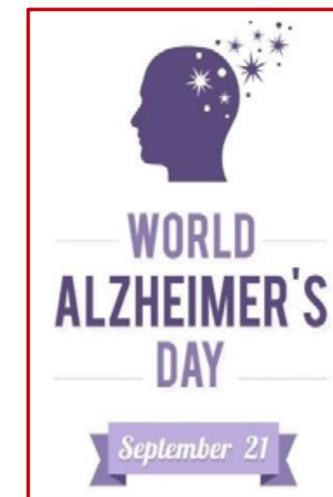


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Disturbo Neurocognitivo amnesico

Dott. Alessandro Introna



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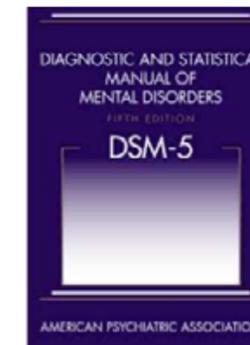
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Mild Neurocognitive Disorder: An Old Wine in a New Bottle

The DSM-5 definition of mild NCD is anchored on **four criteria** and **two specifiers**. The four criteria refer to **cognitive changes, functional activities, and exclusion of delirium and competing mental disorders**. The two specifiers are the presumed **etiologies** of mild NCD and the presence or absence of **behavioral problems**.

Diagnostic Criteria: Mild Neurocognitive Disorder Versus Mild Cognitive Impairment				
Criteria ^a	Original Mayo Clinic ^{8,9}	Expanded/Key Symposium ^{6,7}	NIA-AA ¹⁰	DSM-5 ¹
Self- or informant-reported memory complaint	X			
Self- or informant-reported cognitive complaint		X	X	X
Objective memory impairment	X			
Objective cognitive impairment		X	X	X
Essentially preserved general cognitive functioning	X			
Preserved independence in functional abilities	X	X	X	X
No dementia	X	X	X	X

NIA-AA, National Institute on Aging–Alzheimer’s Association work group; DSM-5, *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed.; X, criterion required.
^a Core clinical criteria according to major definitions are listed.
 Modified and reprinted, with permission, from *Journal of Internal Medicine*.¹¹



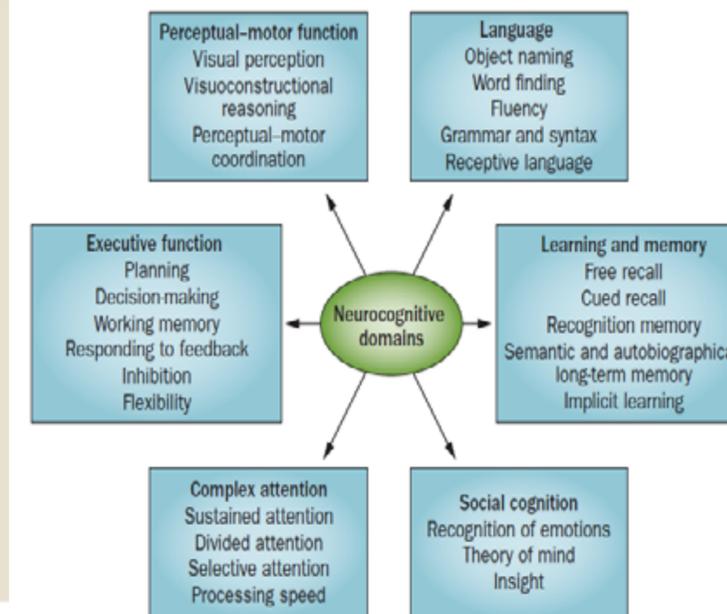
From Stokin et al 2015

MILD NEUROCOGNITIVE DISORDERS

Box 2 | Diagnostic criteria for mild neurocognitive disorder

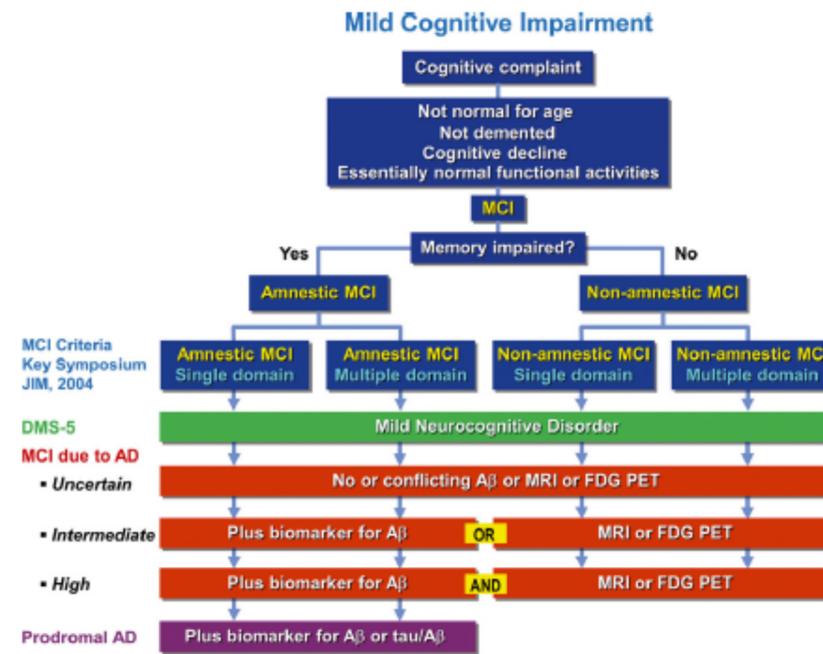
- 1 A. Evidence of modest cognitive decline from a previous level of performance in one or more cognitive domains (complex attention, executive function, learning and memory, language, perceptual-motor, or social cognition) based on:
 1. Concern of the individual, a knowledgeable informant, or the clinician that there has been a mild decline in cognitive function; and
 2. A modest impairment in cognitive performance, preferably documented by standardized neuropsychological testing or, in its absence, another quantified clinical assessment.
- 2 B. The cognitive deficits do not interfere with capacity for independence in everyday activities (that is, complex instrumental activities of daily living such as paying bills or managing medications are preserved, but greater effort, compensatory strategies, or accommodation may be required).
- 3 C. The cognitive deficits do not occur exclusively in the context of a delirium.
- 4 D. The cognitive deficits are not better explained by another mental disorder (for example, major depressive disorder or schizophrenia).

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Petersen et al 2014

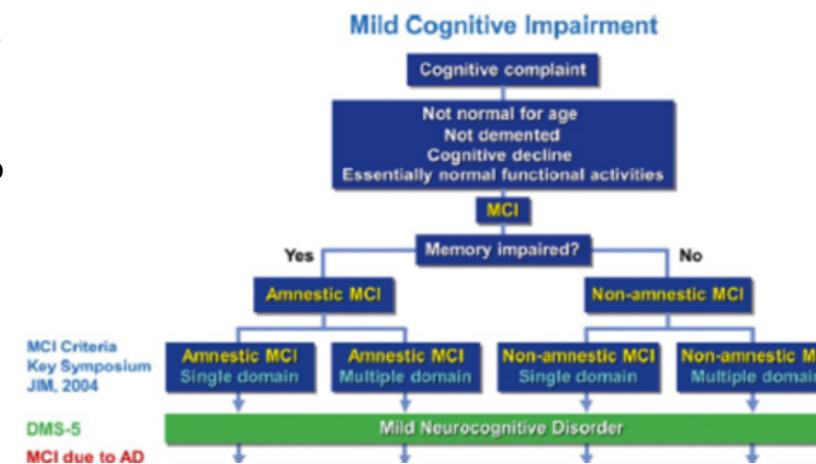
MCI Subtypes

		Etiology			
		Degen-erative	Vascular	Psychiatric	Medical conditions
Clinical classification	Amnestic MCI				
	Single domain	AD		Depr	
	Multiple domain	AD	VaD	Depr	
Non-amnestic MCI	Single domain	FTD			
	Multiple domain	DLB	VaD		

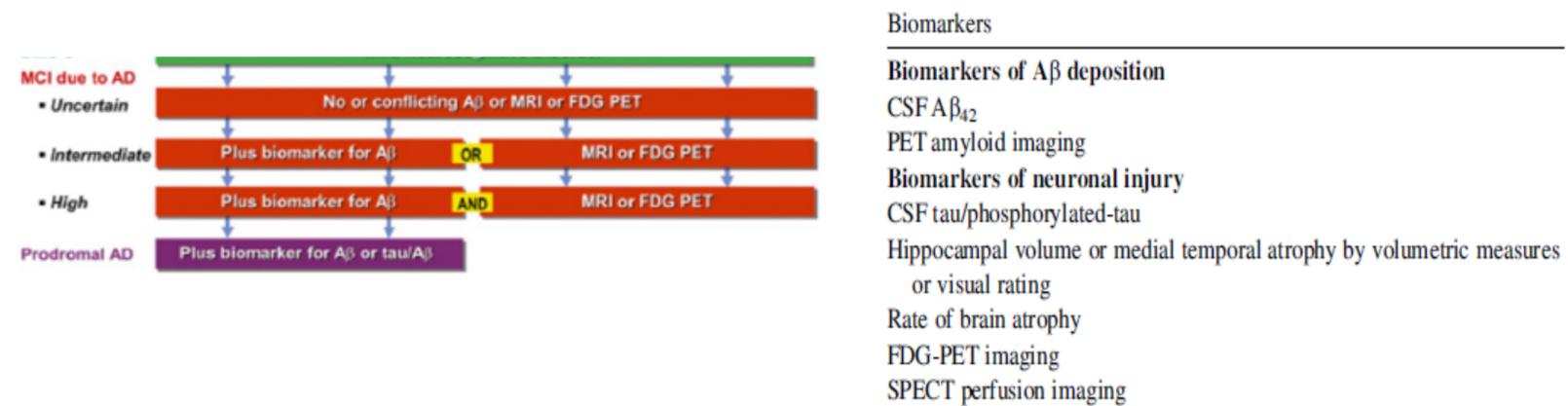
Petersen et al 2004

Mild neurocognitive disorder due to Alzheimer's disease

- **Probable Alzheimer's disease** is diagnosed if there is evidence of a causative Alzheimer's disease genetic mutation from either genetic testing of family history
- **Possible Alzheimer's disease** is diagnosed if there no evidence of a causative Alzheimer's disease genetic mutation from either genetic testing of family history, and all three of the following are present:
 1. Clear evidence of decline in memory and learning;
 2. Steadily progressive, gradual decline in cognition, without extended plateaus
 3. No evidence of mixed etiology (ie absence of other neurodegenerative or cerebrovascular disease or another neurological or systemic disease or condition likely contributing to cognitive decline)



MCI due to AD: biomarkers point-of-view



Albert et al 2011

2018 National Institute on Aging—Alzheimer’s Association (NIA-AA) Research Framework

NIA-AA Research Framework: Toward a biological definition of Alzheimer’s disease

Clifford R. Jack, Jr.^{a,*}, David A. Bennett^b, Kaj Blennow^c, Maria C. Carrillo^d, Billy Dunn^e, Samantha Budd Haeberlein^f, David M. Holtzman^g, William Jagust^h, Frank Jessenⁱ, Jason Karlawish^j, Enchi Liu^k, Jose Luis Molinuevo^l, Thomas Montine^m, Creighton Phelpsⁿ, Katherine P. Rankin^o, Christopher C. Rowe^p, Philip Scheltens^q, Eric Siemers^r, Heather M. Snyder^d, Reisa Sperling^s

Contributors[†]: Cerise Elliott, Eliezer Masliah, Laurie Ryan, and Nina Silverberg

AT(N) SYSTEM

Table 1

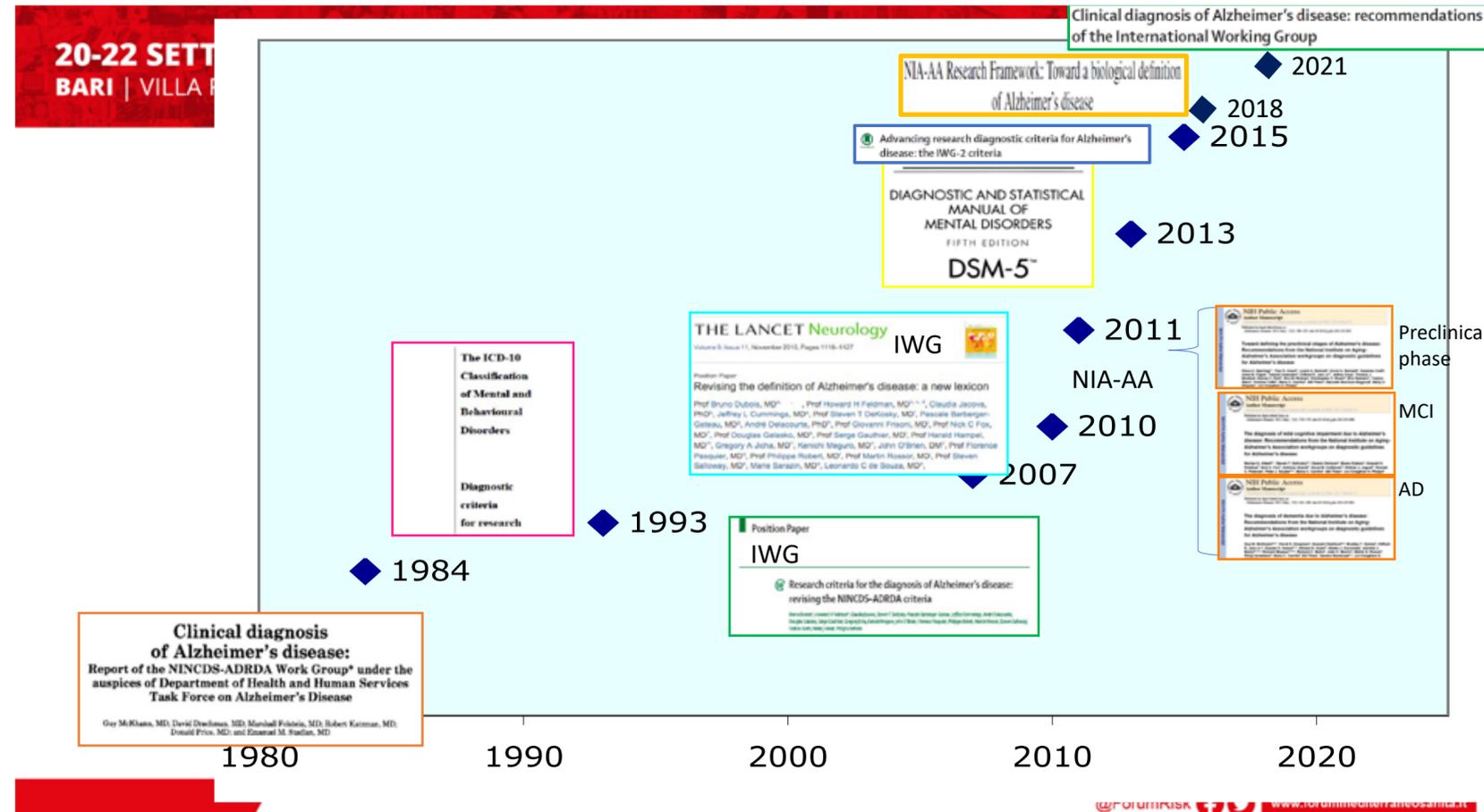
AT(N) biomarker grouping

- A: Aggregated Aβ or associated pathologic state
 - CSF Aβ₄₂, or Aβ₄₂/Aβ₄₀ ratio
 - Amyloid PET
- T: Aggregated tau (neurofibrillary tangles) or associated pathologic state
 - CSF phosphorylated tau
 - Tau PET
- (N): Neurodegeneration or neuronal injury
 - Anatomic MRI
 - FDG PET
 - CSF total tau

Table 2
Biomarker profiles and categories

AT(N) profiles	Biomarker category
A T (N)	Normal AD biomarkers
A+ T-(N)-	Alzheimer’s pathologic change
A+ T+(N)-	Alzheimer’s disease
A+ T-(N)+	Alzheimer’s and concomitant suspected non Alzheimer’s pathologic change
A-T+(N)-	Non-AD pathologic change
A-T-(N)+	Non-AD pathologic change
A-T+(N)+	Non-AD pathologic change





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Clinical diagnosis of Alzheimer's disease: recommendations of the International Working Group

Bruno Dubois, Nicolas Villain*, Giovanni B Frisoni, Gil D Rabinovici, Marwan Sabbagh, Stefano Cappa, Alexandre Bejanin, Stéphanie Bombois, Stéphane Epelbaum, Marc Teichmann, Marie-Odile Habert, Agneta Nordberg, Kaj Blennow, Douglas Galasko, Yaakov Stern, Christopher C Rowe, Stephen Salloway, Lon S Schneider, Jeffrey L Cummings, Howard H Feldman*

	NINCDS-ADRDA (1984) ^a	IWG (2007) ^b	IWG (2010) ^c	NIA-AA (2011) ^{d,e}	IWG (2014) ^f	IWG-AA (2016) ^g	NIA-AA (2018) ^h	IWG (2021)
Applicable settings	Research and clinical	Research	Research	Research and clinical	Research	Research	Research	Research and clinical
Clinical requirements	Dementia (memory changes and another cognitive impairment)	Amnesic syndrome of a hippocampal type	Amnesic syndrome of a hippocampal type, posterior cortical variant, logopenic variant, or behavioural-frontal variant	Mild cognitive impairment (amnesic or non-amnesic) or dementia	Amnesic syndrome of a hippocampal type, posterior cortical variant, logopenic variant, or behavioural-frontal variant	None	None	Amnesic variant, posterior cortical atrophy, logopenic variant primary progressive aphasia, behavioural or dysexecutive frontal variant, corticobasal syndrome, semantic and nonfluent variants of primary progressive aphasia ⁱ
Biological requirements	None	CSF biomarkers, MRI atrophy, ¹⁸ F-fluorodeoxyglucose PET hypometabolism, amyloid PET positive, or Alzheimer's disease autosomal dominant mutation	Pathophysiological markers: CSF changes (low CSF Aβ42, high phosphorylated tau, or high total tau) or amyloid PET positive	Amyloid β marker (CSF or PET) or marker of degeneration (CSF tau, phosphorylated tau, ¹⁸ F-fluorodeoxyglucose-PET, and T1-weighted MRI)	CSF amyloid β and tau or amyloid PET positive	Amyloid β marker (CSF or PET) and tau marker (CSF or PET)	Amyloid β marker (CSF or PET) and tau marker (CSF or PET)	Amyloid β marker (CSF or PET) and tau marker (CSF or PET)

should and should not be used for diagnosing Alzheimer's disease in a clinical setting. We recommend that Alzheimer's disease diagnosis be restricted to people who have positive biomarkers together with specific Alzheimer's disease phenotypes, whereas biomarker-positive cognitively unimpaired individuals should be considered only at-risk for progression to Alzheimer's disease.

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Infermieri e OSS: De Tullio Angela, Mitacchione Cinzia, Pastore Francesco, Citarelli Liberato, Lopez Maria

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- Messa a disposizione del pubblico, in un sistema di reti telematiche, mediante connessioni di qualsiasi genere, di un'opera dell'ingegno protetta, o di parte di essa (art. 171, legge n.633/1941 comma 1 lett. a) bis)
- Reati di cui al punto precedente commessi su opere altrui non destinate alla pubblicazione qualora ne risulti offeso l'onore o la reputazione (art. 171, legge n.633/1941 comma 3)
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