

Electronic Supplementary Material 3 – Base rates for 20 operational criteria for probable cognitive impairment

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Considering the base rates of low performance in cognitively healthy older adults improves the accuracy to identify neurocognitive impairment with the Consortium to Establish a Registry for Alzheimer's Disease-Neuropsychological Assessment Battery (CERAD-NAB)

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Table S3 Base rates for 20 operational criteria for probable cognitive impairment on the CERAD-NAB^a [1,2]

Criterion number	Criterion for cognitive impairment: Based on 10 Scores	Base rates		
		normative sample (<i>N</i> = 1,081)	NC-NC ^c (<i>n</i> = 26)	NC-AD ^d (<i>n</i> = 26)
1	≤ 25th percentile: 6 or more scores	11.9 %	7.7 %	34.6 %
2	≤ 16 th percentile: 5 or more scores	9.3 %	0 %	23.1 %
3	≤ 10th percentile: 4 or more scores	9.5 %	3.8 %	23.1 %
4	≤ 7th percentile: 3 or more scores	11.2 %	11.5 %	23.1 %
5	≤ 2.5th percentile: 2 or more scores	8.5 %	3.8 %	11.5 %
6	≤ 1st percentile: 1 or more scores	10.1 %	3.8 %	15.4 %
7	Criteria 1-6 simultaneously: 1 or more	22.0 %	19.2 %	53.8 %
8	Criteria 1-6 simultaneously: 2 or more	13.8 %	7.7 %	26.9 %
9	Criteria #1 OR #4	16.0 %	15.4 %	42.3 %
Criterion for memory impairment: Based on 7 Scores				
10	≤ 25th percentile: 5 or more scores	11.0 %	3.8 %	38.5 %
11	≤ 16th percentile: 4 or more scores	10.5 %	7.7 %	26.9 %
12	≤ 10th percentile: 3 or more scores	11.2 %	7.7 %	23.1 %
13	≤ 7th percentile: 3 or more scores	7.1 %	7.7 %	15.4 %
14	≤ 2.5th percentile: 2 or more scores	6.8 %	0.0 %	11.5 %
15	≤ 1st percentile: 1 or more scores	7.7 %	0.0 %	11.5 %
16	Criteria 1-6 simultaneously: 1 or more	19.3 %	7.7 %	46.2 %
17	Criteria 1-6 simultaneously: 2 or more	12.6 %	7.7 %	30.8 %
18	Criteria #10 OR #13	13.0 %	7.7 %	42.3 %
Combined criteria for probable cognitive impairment				
19	(Verbal Fluency OR BNT ^b ≤ 16th percentile) AND #16	6.1%	0.0%	7.7%
20	Figures Copy ≤ 16th percentile AND #16	3.1	0.0%	11.5%

The base rates for each criterion (1-20) are provided for the normative sample and for two subgroups (NC–NC, NC–AD) with known future outcomes. If a single criterion is applied in research or in clinical practice, then the

associated base rate is accurate (e.g., #13 = 7.1 % in the normative sample). However, if multiple criteria are applied simultaneously, the base rates increase (e.g., see #7 and #16)

^a CERAD-NAB = Consortium to Establish a Registry for Alzheimer's Disease-Neuropsychological Assessment Battery

^b BNT = Boston Naming Test

^c NC-NC = cognitively healthy participants who remained healthy

^d NC-AD = initially healthy participants who progressed to Alzheimer's disease dementia