

Supplement to Levine, et al. Linking the Mini-Mental State Examination, the Alzheimer’s Disease Assessment Scale-Cognitive Subscale, and the Severe Impairment Battery: Evidence from Individual Participant Data from Five Randomized Clinical Trials of Donepezil

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eTable 1: Total sample: MMSE total scores linking with ADAS-Cog total scores

MMSE	Baseline (n=1102)	Week 1 (n=152)	Week 3 (n=597)	Week 6 (n=996)	Week 9 (n=562)	Week 12 (n=961)	Week 18 (n=381)	Week 24 (n=380)
3					60			67
4					60	66		67
5		54		60	60	61	64	61
6	61	54		60	60	60	64	55
7	60	54		58	60	57	58	55
8	59	54	61	49	60	54	57	50
9	56	54	52	47	60	52	50	48
10	51	51	49	46	48	48	50	45
11	47	46	46	44	46	46	48	44
12	44	45	42	43	45	44	42	42
13	40	44	41	40	43	41	36	38
14	38	40	39	38	40	38	35	35
15	36	33	36	34	35	36	34	34
16	34	32	33	32	32	33	32	31
17	31	31	31	30	31	31	29	30
18	28	30	28	26	27	28	28	27
19	26	27	26	25	26	26	27	26
20	24	25	23	24	25	24	24	23
21	23	22	22	23	24	22	21	22
22	21	20	20	21	22	21	19	21
23	19	19	18	19	19	19	18	17
24	18	17	16	18	18	17	16	15
25	16	15	14	16	17	15	14	14
26	13	13	13	14	15	13	11	13
27	8	13	11	13	14	11	10	11
28	6	10	9	11	13	10	8	10
29		9	8	9	10	9	7	9
30		30	6	6	6	7	5	7

Note. MMSE total scores by ADAS-Cog total scores for each visit. The MMSE and ADAS-Cog total Spearman's correlation coefficients were of strong magnitude (i.e. $r=0.70-0.89$) over time (Table 2).

eTable 2: Total sample: MMSE total change scores linking with ADAS-Cog total change scores

MMSE	Week 1 (n=149)	Week 3 (n=594)	Week 6 (n=991)	Week 9 (n=560)	Week 12 (n=957)	Week 18 (n=380)	Week 24 (n=379)
-10				16	20		21
-9				16	20	17	21
-8			18	16	20	17	19
-7			14	16	16	17	14
-6	11	11	9	16	12	15	13
-5	4	8	8	16	7	7	11
-4	1	6	6	15	6	6	8
-3	1	4	4	5	4	4	7
-2	0	2	2	2	2	3	4
-1	-2	0	1	1	1	1	3
0	-3	-1	-1	1	-1	-1	2
1	-4	-3	-2	0	-2	-3	0
2	-4	-4	-4	-4	-4	-4	-2
3	-4	-6	-5	-7	-5	-6	-4
4	-6	-7	-7	-9	-7	-9	-6
5	-6	-9	-9	-11	-8	-10	-10
6	-7	-12	-10	-11	-9	-20	-12
7	-16	-22	-10	-11	-12	-20	-12
8	-16	-22	-12	-11	-14	-20	-13
9		-22	-24	-11	-18	-20	-14
10		-22	-24	-11	-26		
11		-22	-24	-11	-26		
12					-26		

Note. MMSE total change scores by ADAS-Cog total change scores for each visit. The MMSE and ADAS-Cog change scores Spearman's correlation coefficients were of weak magnitude (i.e. $r=0.10-0.39$) to week 12 inclusive, and of moderate magnitude ($r=0.40-0.69$) at week 24 (See Table 2).

eTable 3: Total sample: MMSE total scores linking with SIB total scores

MMSE	Baseline (n=1785)	Week 6 (n=1225)	Week 12 (n=1156)	Week 18 (n=1095)	Week 24 (n=1549)
0	4	2	6	6	5
1	11	11	14	16	16
2	23	22	29	26	26
3	32	32	34	34	34
4	40	41	39	39	41
5	48	47	45	44	48
6	53	51	52	50	53
7	59	55	56	54	59
8	64	60	61	59	64
9	68	65	66	66	69
10	72	70	70	70	73
11	76	74	74	75	77
12	79	77	77	79	80
13	81	81	81	82	82
14	83	83	83	84	85
15	85	85	85	86	86
16	86	87	87	88	88
17	87	89	88	89	90
18	88	90	90	91	91
19	89	91	91	92	92
20	90	93	93	93	94
21	100	94	94	95	95
22	100	95	95	96	96
23		96	96	96	96
24		97	97	97	98
25		98	98	98	98
26		98	98	99	99
27		99	99	99	100
28		99	100	100	100
29		100		100	100
30				100	

Note. MMSE total scores by SIB total scores for each visit. The MMSE and SIB total Spearman's correlation coefficients were of strong magnitude (i.e. $r=0.70-0.89$) over time (See Table 2).

eTable 4: Total sample: MMSE total change scores linking with SIB total change scores

MMSE	Week 6 (n=1225)	Week 12 (n=1156)	Week 18 (n=1095)	Week 24 (n=1548)
-12			-45	-80
-11			-34	-59
-10			-34	-50
-9	-38		-34	-48
-8	-34	-38	-32	-46
-7	-28	-28	-26	-39
-6	-22	-20	-22	-28
-5	-16	-15	-17	-22
-4	-13	-12	-13	-16
-3	-8	-8	-8	-10
-2	-4	-5	-5	-6
-1	-2	-1	-1	-2
0	1	1	2	1
1	4	4	4	4
2	6	6	6	6
3	8	8	8	8
4	11	10	11	10
5	15	12	13	13
6	18	15	16	15
7	23	18	20	18
8	24	21	24	21
9	33	25	29	25
10	36	33	41	33
11		42	48	36
12		42	48	39
13		42	48	41
14		48	48	45
15			50	45
16				45
17				45
18				49

Note. MMSE total change scores by SIB total change scores for each visit. The Spearman's correlation coefficients between the MMSE and SIB change scores across time were of weak magnitude to week 9 (i.e. $r=0.10-0.39$), and of moderate magnitude ($r=0.40-0.69$) thereafter (See Table 2).

eTable 5: Sensitivity analysis: MMSE total scores linking with ADAS-Cog total scores

MMSE	Baseline (n=623)	Week 1 (n=152)	Week 3 (n=144)	Week 6 (n=559)	Week 9 (n=135)	Week 12 (n=539)	Week 18 (n=381)	Week 24 (n=380)
3								67
4						62		67
5		54		60	52	60	64	61
6	61	54		60	52	60	64	55
7	60	54		58	46	59	58	55
8	60	54	61	48	45	56	57	50
9	58	54	50	47	45	52	50	48
10	52	51	47	46	45	48	50	45
11	45	46	46	46	42	47	48	44
12	41	45	42	44	41	46	42	42
13	40	44	40	40	40	43	36	38
14	38	40	39	38	32	38	35	35
15	36	33	38	34	32	36	34	34
16	35	32	35	33	32	32	32	31
17	32	31	33	31	31	30	29	30
18	30	30	30	26	30	28	28	27
19	27	27	26	24	28	27	27	26
20	24	25	21	24	24	24	24	23
21	22	22	20	22	24	22	21	22
22	21	20	20	21	21	21	19	21
23	19	19	18	18	18	18	18	17
24	18	17	16	17	16	17	16	15
25	16	15	16	15	15	15	14	14
26	13	13	14	14	14	12	11	13
27	8	13	13	13	13	11	10	11
28	8	10	12	11	10	11	8	10
29		9	11	8	9	10	7	9
30		30	6	30	8	9	5	7

Note. MMSE total scores by ADAS-Cog total scores for each visit.

eTable 6: Sensitivity analysis: MMSE total change scores linking with ADAS-Cog total change scores

X	Week 1 (n=149)	Week 3 (n=142)	Week 6 (n=556)	Week 9 (n=134)	Week 12 (n=536)	Week 18 (n=380)	Week 24 (n=379)
-10				10	20		21
-9				10	20	17	21
-8			18	10	20	17	19
-7			14	10	20	17	14
-6	11		9	10	12	15	13
-5	4	9	8	10	7	7	11
-4	1	9	5	10	6	6	8
-3	1	8	3	6	5	4	7
-2	0	5	2	6	2	3	4
-1	-2	3	0	2	1	1	3
0	-3	-1	-1	-1	-1	-1	2
1	-4	-2	-2	-2	-2	-3	0
2	-4	-3	-4	-4	-4	-4	-2
3	-4	-4	-5	-6	-5	-6	-4
4	-6	-6	-8	-8	-6	-9	-6
5	-6	-9	-8	-11	-7	-10	-10
6	-7	-16	-10	-14	-9	-20	-12
7	-16		-10	-14	-12	-20	-12
8	-16		-10		-12	-20	-13
9			-20		-18	-20	-14
10			-20		-18		

Note. MMSE total change scores by ADAS-Cog total change scores for each visit.