

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Cognitive Change Within Tertiles

Average estimated annual change in raw score			
	Lowest Tertile (95% CI)	Middle Tertile (95% CI)	Upper Tertile (95% CI)
3MS	-0.22 (-0.23, -0.22)	+0.04 (0.040, 0.041)	+0.20 (+0.193,0.198)
SDMT	-0.30 (-0.30, -0.29)	+0.01 (0.011, 0.012)	+0.28 (0.28, 0.29)
HVLT-R	-0.17 (-0.175, -0.168)	+0.026 (0.025, +0.027)	+0.16 (0.15, 0.16)
COWAT-F	-0.14 (-0.151, -0.148)	-0.009 (-0.010, -0.008)	+0.16 (0.15, 0.16)
Inter-Quartile Range of estimated annual change (25 th percentile, 75 th Percentile)			
	Lowest Tertile	Middle Tertile	Upper Tertile
3MS	-0.29, -0.09	+0.01, +0.08	+0.14, +0.23
SDMT	-0.38, -0.15	-0.02, +0.05	+0.16, +0.36
HVLT-R	-0.22, -0.09	-0.01, +0.06	+0.12, +0.19
COWAT-F	-0.19, -0.09	-0.04, +0.04	+0.07, +0.20

3MS - Modified Mini-Mental State examination; HVLT-R- Hopkins Verbal Learning Test-Revised; SDMT- Symbol Digit Modalities; COWAT-F - Controlled Oral Word Association Test (single letter)

eTable 2. Overlap Between Cognitive Decline and Dual Decline Groupings

A. Cognitive Decline Groupings					
	Total	Lower tertile HVLt-R	Lower tertile SDMT	Lower tertile 3MS	Lower tertile COWAT
Lower tertile HVLt-R	5,597 (100%)		2,140 (38%)	3,271 (58%)	2,421 (43%)
Lower tertile SDMT	5,350 (100%)	2,140 (40%)		2,197 (41%)	2,078 (39%)
Lower tertile 3MS	5,577 (100%)	3,271 (59%)	2,197 (39%)		2,433 (44%)
Lower tertile COWAT	5,382 (100%)	2,421 (44%)	2,078 (39%)	2,433 (45%)	
B. Dual Decline Groupings					
	Total	Dual Decline HVLt-R	Dual Decline SDMT	Dual Decline 3MS	Dual Decline COWAT
Dual Decline HVLt-R	1,590 (100%)		604 (38%)	907 (57%)	639 (40%)
Dual Decline SDMT	1,456 (100%)	604 (41%)		643 (44%)	558 (38%)
Dual Decline 3MS	1,569 (100%)	907 (58%)	643 (41%)		667 (43%)
Dual Decline COWAT	1,397 (100%)	639 (46%)	558 (40%)	667 (48%)	

HVLt-R- Hopkins Verbal Learning Test-Revised; SDMT- Symbol Digit Modalities; 3MS - Modified Mini-Mental State examination; COWAT-F - Controlled Oral Word Association Test (single letter).

Dual-Decline - Longitudinal decline in gait speed of $\geq 0.05\text{m/s/y}$ plus annualised cognitive change in lowest tertile of sample.

eTable 3. Participants Remaining At-Risk

(Cumulative Hazard Function for Dementia, Death as Competing Risk)

Cognitive Measure	Years Since Randomisation					
	2	3	4	5	6	7
Global Cognition (3MS)						
No Decline	8436	7473	5804	3666	1415	48
Cog Only	4008	3662	2908	1908	655	33
Gait Only	2842	2371	1647	990	342	6
Dual Decline	1567	1347	926	567	169	4
Memory (HVLt-R)						
No Decline	8369	7468	5839	3710	1453	53
Cog Only	4007	3622	2846	1851	606	30
Gait Only	2349	2349	1641	996	321	7
Dual Decline	1588	1348	923	557	187	4
Attention-Speed of processing (SDMT)						
No Decline	8510	7351	5599	3459	1251	33
Cog Only	3894	3756	3101	2106	808	48
Gait Only	2928	2335	1532	879	269	5
Dual Decline	1363	1363	1030	671	241	5
Verbal fluency (COWAT-F)						
No Decline	8447	7376	5630	3482	1295	39
Cog Only	3756	3756	3080	2091	767	42
Gait Only	3000	2429	1628	965	304	7
Dual Decline	1397	1281	940	590	204	4

3MS - Modified Mini-Mental State examination; HVLt-R- Hopkins Verbal Learning Test-Revised; SDMT-Symbol Digit Modalities; COWAT-F - Controlled Oral Word Association Test (single letter)

eTable 4. Baseline Cognitive Scores, Gait Speed and Association With Dementia in Baseline-Only Cox Models

	Baseline Score Model				Combined Baseline Indicator Model	
	Baseline Gait Speed		Baseline Cognitive Score		Indicator Variable: Lowest Tertile for cognition <i>and</i> Gait Speed at baseline	
	HR	95% CI	HR	95% CI	HR	95% CI
Global Cognition (3MS score)	0.56	0.35 - 0.90	0.85	0.84 - 0.87	3.20	2.57 – 4.00
Processing Speed (SDMT score)	0.60	0.38 - 0.97	0.93	0.92 - 0.94	2.93	2.33 - 3.67
Memory (HVLТ-R score)	0.45	0.28 - 0.72	0.75	0.73 - 0.78	3.16	2.54 – 3.91
Verbal Fluency (COWAT-F score)	0.41	0.25 – 0.66	0.94	0.91 – 0.96	1.86	1.48 - 2.36

All models also adjusted for age at randomisation, gender, education and country (Australia/US). HR = Hazard Ratio
 3MS - Modified Mini-Mental State examination; HVLТ-R- Hopkins Verbal Learning Test-Revised; SDMT-Symbol Digit Modalities; COWAT-F - Controlled Oral Word Association Test (single letter).