

Demographic

Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
Subject ID		id	text		
Intervention Start Date	BL	stat_interv_start_date	Date in MDY format	Form 29	19
REDCap Randomization Assignment	BL	rand_assignment	1-Stretching	Form 28	1472
			2-Exercise only		
			3-IRVR only		
			4-IRVR + Exercise		
Which randomization project was used?	BL	rand_project	1-Starting rrAD Randomization-Not well controlled hypertensive participants	Form 28	1473
			2-Additional Randomization for well controlled hypertensive participants		
Demographics Visit Date	BL, M24	dem_visit_date	Date in MDY format	Form 03	71
Age in years; at study consent	BL, M24	dem_age	Min=60, Max=85	Form 03	75
Subject's sex	BL, M24	dem_sex	1-Male	Form 03	76
			2-Female		
Does the subject report being of Hispanic/Latin ethnicity (i.e., having origins from a mainly Spanish-speaking Latin American country), regardless of race?	BL, M24	dem_hispanic	0-No	Form 03	77
			1-Yes		
			9-Unknown		
What does the subject report as his or her race?	BL, M24	dem_race	1-White	Form 03	78
			2-Black or African American		
			3-American Indian or Alaska Native		
			4-Native Hawaiian or other Paci		
			5-Asian		
			6-More than one race		
			8-Other		
			9-Unknown		
Subject's primary language	BL, M24	dem_language	1=English	Form 03	80
			2=Spanish		
			3=Mandarin		
			4=Cantonese		
			5=Russian		
			6=Japanese		
			8=Other primary language		
			9=Unknown		

Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
Subject's years of education	BL, M24	dem_education	Min=0; Max=20, 99=Missing	Form 03	82
			12=Completed high school or GED		
			16=Completed bachelor's degree		
			18=Completed master's degree		
			20=Completed doctorate		
			99=Missing/Unknown		
Does the subject report being left or right handed (for example, which hand would s/he normally use to write or throw a ball)?	BL, M24	dem_handed	Left-handed	Form 03	91
			Right-handed		
			Ambidextrous		
Physical Exam Visit Date	BL, M12, M24	phy_visit_date	Date in MDY format	Form 10	391
Height (in cm)	BL, M12, M24	phy_height	Integer, Min=120, Max=220	Form 10	395
Weight in kg	BL, M12, M24	phy_weight	Min=30, Max=120	Form 10	396
BMI	BL, M12, M24	phy_bmi	Calculation round to the nearest whole number	Form 10	397
Health History Visit Date	BL, M12, M24	hhx_visit_date	Date in MDY format	Form 07	282
Has subject smoked within last two years?	BL, M24	hhx_cig_2yr	0=No	Form 07	285
			1=Yes		
			9=Unknown		
Has the subject smoked more than 100 cigarettes in her/his life?	BL, M24	hhx_cig_100	0=No	Form 07	286
			1=Yes		
			9=Unknown		
In the past three months, has the subject consumed any alcohol?	BL, M24	hhx_alcohol	0=No	Form 07	293
			1=Yes		
			9=Unknown		
Heart attack/cardiac arrest	BL, M24	hhx_heart_attack	0=Absent	Form 07	296
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Atrial fibrillation	BL, M24	hhx_afin	0=Absent	Form 07	298
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Angioplasty/endarterectomy/stent	BL, M24	hhx_angio	1=Recent/Active	Form 07	299
			2=Remote/Inactive		

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			9=Unknown		
Cardiac bypass procedure	BL, M24	hhx_bypass	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	300
Pacemaker and/or defibrillator	BL, M24	hhx_pacemaker	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	301
Congestive heart failure	BL, M24	hhx_congestive	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	302
Angina	BL, M24	hhx_angina	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	303
Heart valve replacement or repair	BL, M24	hhx_heart_valve	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	304
Transient ischemic attack (TIA)	BL, M24	hhx_cv_tia	1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	309
Parkinson's disease (PD)	BL, M24	hhx_neuro_pd	0=Absent 1=Recent/Active 9=Unknown	Form 07	311
Other parkinsonism disorder (e.g., PSP, CBD)	BL, M24	hhx_neuro_pd_other	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	312
Seizures	BL, M24	hhx_neuro_seizures	0=Absent 1=Recent/Active	Form 07	313

Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
Seizures	BL, M24	hhx_neuro_seizures	2=Remote/Inactive 9=Unknown	Form 07	313
Have you ever had a hit to your head that caused a concussion? By a concussion, we mean that after getting hit on your head, you had symptoms such as loss of consciousness, headache, dizziness, nausea/vomiting, balance problems, ringing of the ears, changes with vision or eyesight, change in mood, speaking clearly, etc.	BL, M24	hhx_cuss	1=Yes 0=No 9=Do not know	Form 07	314
How many concussions have you had?	BL, M24	hhx_cuss_number	Integer, Min=0, Max=20	Form 07	316
At any time when you hit your head, did you lose consciousness?	BL, M24	hhx_cuss_loc	1=Yes 0=No 9=Do not know	Form 07	329
Diabetes	BL, M24	hhx_med_diabetes	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	333
Hypertension	BL, M24	hhx_med_htn	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	335
Hypercholesterolemia	BL, M24	hhx_med_hypercho	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	336
B12 deficiency	BL, M24	hhx_med_b12	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	337
Thyroid disease	BL, M24	hhx_med_thyroid	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	338
Arthritis	BL, M24	hhx_med_arthr	0=Absent 1=Recent/Active 2=Remote/Inactive 9=Unknown	Form 07	339

Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
Sleep apnea	BL, M24	hhx_med_sleep_apnea	0=Absent	Form 07	345
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
REM sleep behavior disorder (RBD)	BL, M24	hhx_med_rbd	0=Absent	Form 07	346
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Hyposomnia/insomnia	BL, M24	hhx_med_somnia	0=Absent	Form 07	347
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Alcohol abuse	BL, M24	hhx_subs_abus_alcohol	0=Absent	Form 07	350
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Post-traumatic stress disorder (PTSD)	BL, M24	hhx_psych_ptsd	0=Absent	Form 07	353
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Bipolar disorder	BL, M24	hhx_psych_bipolar	0=Absent	Form 07	354
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Schizophrenia	BL, M24	hhx_psych_schizo	0=Absent	Form 07	355
			1=Recent/Active		
			2=Remote/Inactive		
			9=Unknown		
Active depression in the lasttwo years	BL, M24	hhx_psych_depress_active	0=No	Form 07	357
			1=Yes		
			9=Unknown		
Anxiety	BL, M24	hhx_psych_anxiety	0=Absent	Form 07	359
			1=Recent/Active		

Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
Anxiety	BL, M24	mix_psych_anxiety	2=Remote/Inactive 9=Unknown	Form 07	000

Primary Outcome					
Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
MMSE (SC given at BL and M18; A given at M6 and M24; Form B given at M12 unless noted on form)					
MMSE Visit Date	BL, M6, M12, M18, M24	mmsea_visit_date; mmseb_visit_date; mmsec_visit_date	Visit Date in MM/DD/YYYY format	Form 27	1503;1549; 1594
Was MMSE test given virtually?	BL, M6, M12, M18, M24	mmsea_virtual_visit; - ; mmsec_virtual_visit	1=Subject was tested virtually <blank>=Subject was tested in person	Form 27	1505; - ;1596
MMSE Total	BL, M6, M12, M18, M24	mmsea_score; mmseb_score; mmsec_score	0-30	Form 27	1547; 1592; 1639
MMSE Prorated Total Score	BL, M6, M12, M18, M24	MMSE_Pro_Total	0-30 (If this was a virtual test and Question 10 (Building floor) was not asked, participants scores were prorated)	Form 27	Calculated
Neurocognitive Testing					
Cognitive Visit Date	BL, M6, M12, M18, M24	cog_visit_date	Visit Date in MM/DD/YYYY format	Form 27	1389
Cognitive Testing Version	BL, M6, M12, M18, M24	cog_pkt_version	SC (visits BL and M18)	Form 27	1392
			A (visits M6 and M24)		
			B (visit M12)		
Was this a virtual visit?	BL, M6, M12, M18, M24	virtual_testing	1=Subject was tested virtually <blank>=Subject was tested in person	Form 27	1395
The ADCS-PACC Questionnaires					
Logical Memory Test I: Immediate Recall Score	BL, M6, M12, M18, M24	cog_lmem_immed_recall	Integer, Min=0, Max=25	Form 27	1397
WAIS-R Digit Symbol Substitution: Raw Score	BL, M6, M12, M18, M24	cog_waisr_raw	Integer, Min=0, Max=91	Form 27	1399
WAIS-R Digit Symbol Substitution: Scaled Score	BL, M6, M12, M18, M24	cog_waisr_scaled	Integer, Min=0, Max=20	Form 27	1400
WAIS-R Digit Symbol Substitution: Age-Corrected Score	BL, M6, M12, M18, M24	cog_waisr_agecorrected	Integer, Min=0, Max=20	Form 27	1401
Free and Total Free Recall from the Free and Cued Selective Reminding Test (FCSRT): Total Free Recall Score	BL, M6, M12, M18, M24	cog_fcsrt_recall_free	Integer, Min=0, Max=48	Form 27	1403
Free and Total Free Recall from the Free and Cued Selective Reminding Test (FCSRT): Total Recall Score (Free and Cued)	BL, M6, M12, M18, M24	cog_lmem_recall_total	Integer, Min=0, Max=48	Form 27	1404
Logical Memory Test II: Delayed Recall Score	BL, M6, M12, M18, M24	cog_lmem_delay_recall	Integer, Min=0, Max=25	Form 27	1407
NIH Toolbox Components					
List Sorting Working Memory Test: Uncorrected Score	BL, M6, M12, M18, M24	cog_ISTSRT_wkmem_uncorr	Number, Min=55, Max=145	Form 27	1409
List Sorting Working Memory Test: Age-Corrected Score	BL, M6, M12, M18, M24	cog_ISTSRT_wkmem_agecorr	Number, Min=55, Max=145	Form 27	1410

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List Sorting Working Memory Test: Fully-Corrected T-Score	BL, M6, M12, M18, M24	cog_lstsr_t_wkmem_tcorr	Number, Min=20, Max=80	Form 27	1411
Flanker Inhibitory Control and Attention: Uncorrected Score	BL, M6, M12, M18, M24	cog_flanker_uncorrected	Number, Min=55, Max=145	Form 27	1413
Flanker Inhibitory Control and Attention: Age-Corrected Score	BL, M6, M12, M18, M24	cog_flanker_agecorrected	Number, Min=55, Max=145	Form 27	1414
Flanker Inhibitory Control and Attention: Fully-Corrected T-Score	BL, M6, M12, M18, M24	cog_flanker_tcorrected	Number, Min=20, Max=80	Form 27	1415
Dimensional Change Card Sort Test (DCCS): Uncorrected Score	BL, M6, M12, M18, M24	cog_dccs_uncorrected	Number, Min=55, Max=145	Form 27	1417
Dimensional Change Card Sort Test; Age-Corrected Score	BL, M6, M12, M18, M24	cog_dccs_agecorrected	Number, Min=55, Max=145	Form 27	1418
Dimensional Change Card Sort Test: Fully-Corrected T-Score	BL, M6, M12, M18, M24	cog_dccs_tcorrected	Number, Min=20, Max=80	Form 27	1420
Pattern Comparison Processing Speed: Uncorrected Score	BL, M6, M12, M18, M24	cog_pattern_uncorrected	Number, Min=55, Max=145	Form 27	1421
Pattern Comparison Processing Speed: Age-Corrected Score	BL, M6, M12, M18, M24	cog_pattern_agecorrected	Number, Min=55, Max=145	Form 27	1422
Pattern Comparison Processing Speed: Fully-Corrected T-Score	BL, M6, M12, M18, M24	cog_pattern_tcorrected	Number, Min=20, Max=80	Form 27	1423
NIH PROMIS Battery					
Anger T-Score	BL, M6, M12, M18, M24	cog_anger_tscore	Number, Min=20, Max=80	Form 27	1425
Depression T-Score	BL, M6, M12, M18, M24	cog_depression_tscore	Number, Min=20, Max=80	Form 27	1427
Self-Reported Physical Function T-Score	BL, M6, M12, M18, M24	cog_sr_physfunc_tscore	Number, Min=20, Max=80	Form 27	1429
Sleep Disturbance T-Score	BL, M6, M12, M18, M24	cog_sleep_disturb_tscore	Number, Min=20, Max=80	Form 27	1431
Sleep-Related Impairment T-Score	BL, M6, M12, M18, M24	cog_sleep_impair_tscore	Number, Min=20, Max=80	Form 27	1433
Anxiety T-Score	BL, M6, M12, M18, M24	cog_anxietyr_tscore	Number, Min=20, Max=80	Form 27	1435
Global Mental Health T-Score	BL, M6, M12, M18, M24	cog_globmhealth_tscore	Number, Min=20, Max=80	Form 27	1437
Global Physical Health T-Score	BL, M6, M12, M18, M24	cog_globphealth_tscore	Number, Min=20, Max=80	Form 27	1439
Applied Cognition General Concerns T-Score	BL, M6, M12, M18, M24	cog_applied_tscore	Number, Min=20, Max=80	Form 27	1441
Applied Cognition Abilities T-Score	BL, M6, M12, M18, M24	cog_applied_cog_tscore	Number, Min=20, Max=80	Form 27	1443

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Cognitive Change Index					
Cognitive Change Index (CCI) Total Score	BL, M6, M12, M18, M24	cog_total	Number, Min=20.0, Max=100.0	Form 27	1444
GDS (Geriatric Depression Scale)					
GDS Visit Date	BL, M12, M24	gds_visit_date	Date in MDY format	Form 08	365
Number of items answered	BL, M12, M24	gds_answers	Scoring check	Form 08	385
GDS Sum of all checked answers	BL, M12, M24	gds_sum	Sum of all checked answers; Max 15	Form 08	386
Prorated Total GDS Score	BL, M12, M24	gds_prorate	Prorated score based upon completing a minimum of 12 items (the sum of the completed items divided by the number of item responses times 15)	Form 08	389
			0-15 completed instrument		
			88=Did not complete the minimum of 12 items		
Exercise Testing					
Exercise Visit Date (Form 22)	BL, M12, M24	ext_vo2_visit_date	Date in MDY format	Form 22	1143
Peak V02 (L/min)	BL, M12, M24	ext_vo2_peakv02	Number, Min=0, Max=8)	Form 22	1161
Peak V02 (ml/kg/min)	BL, M12, M24	ext_vo2_peakv02_2	Number, Min=0, Max=80)	Form 22	1162
MRI Measures					
3D T1 MPRAGE	BL, M24		3D T1 MPRAGE	Provided by the MRI Core	
Resting-state fMRI	BL, M24		Resting-state fMRI	Provided by the MRI Core	
3D pseudo-continuous ASL	BL, M24		3D pseudo-continuous ASL	Provided by the MRI Core	
DTI	BL, M24		DTI	Provided by the MRI Core	
2D T2 FLAIR	BL, M24		2D T2 FLAIR	Provided by the MRI Core	
2D T2*-weighted	BL, M24		2D T2*-weighted	Provided by the MRI Core	
2D Phase Contrast	BL, M24		2D Phase Contrast	Provided by the MRI Core	

Intervention					
Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
BP Visit Date (Form 20)	BL, M6, M12, M18, M24	bp_visit_date	Date in MDY format	Form 20	982
Average 2nd and 3rd Seated Systolic	BL, M6, M12, M18, M25	bp_sit_avg_systolic2_3	Rounded average calculation	Form 20	1001
Average 2nd and 3rd Seated Diastolic	BL, M6, M12, M18, M26	bp_sit_avg_diastolic2_3	Rounded average calculation	Form 20	1002
Average 2nd and 3rd Seated Heart Rate	BL, M6, M12, M18, M27	bp_sit_avg_hrate2_3	Rounded average calculation	Form 20	1003
Screening HgA1C Date of Draw	BL	lab_scr_draw_date	Date in MDY format, Min: 2016-12-01)	Form 19	961
Hemoglobin A1C (U/L) (%)	BL	lab_scr_hglobin_value	Number, Max: 5.7%	Form 19	967
CMP Date of Draw (Form 24)	BL, M12, M24	lab_fup_draw_date	Date in MDY format; Min=2016-12-01)	Form 24	1228
estimated GFR (eGFR) (ml/min)	BL, M12, M24	lab_fup_gfr_value	Integer, Min=60, Max=120	Form 24	1253
Hemoglobin A1C (U/L) (%)	M12, M24	lab_fup_hemoglob_value	Number, Max: 5.7%	Form 24	1318
Total Cholesterol (mg/dL)	BL, M12, M24	lab_fup_tot_chol	Integer, Min=125, Max=200	Form 24	1322
HDL Cholesterol (mg/dL)	BL, M12, M24	lab_fup_hdl_chol_value	Integer, Min=39)	Form 24	1328
Triglycerides (mg/dL)	BL, M12, M24	lab_fup_triglyc_value	Integer, Min=50, Max=150	Form 24	1333
LDL Cholesterol (mg/dL)	BL, M12, M24	lab_fup_ldl_chol_value	Integer, Max=100)	Form 24	1338
BMP Date of Draw	M6, M18	lab_bmp_draw_date	Date in MDY format; Min=2016-12-01)	Form 33	1666
estimated GFR (eGFR) (ml/min)	M6, M18	lab_bmp_crtgfr_val	Integer, Min=60, Max=120	Form 33	1687

Safety					
Field Label	Time Points	Variable / Field Name	Field Attributes (Field Type, Validation, Choices,	Form Number	Office Use Only
AE Onset Date	As event occurs	ae_onset_date	Date in MDY format	Form 15	730
Serious Adverse Event (SAE); CATEGORIES OF SERIOUS ADVERSE EVENTS (outcome)	As event occurs	rae_classification	1-results in death 2-results in persistent or significant disability/incapacity 3-life-threatening condition 4-requires medical or surgical intervention to prevent impairment of a body function or permanent damage to body structure 5-requires inpatient hospitalization or prolongation of an existing hospitalization 6-Unknown	Form 16	738
Does AE meet definition of SAE?	As event occurs	rae_eligible	1=Yes 0=No	Form 16	740
Is this a Reportable Adverse Event (RAE)?	As event occurs	rae_is	1=Yes 0=No	Form 16	744
Was Subject hospitalized?	As event occurs	rae_hospitalized	1=Yes 0=No	Form 16	763
If hospitalized, Admission date	As event occurs	rae_hospitalized_start	Date in MDY format	Form 16	764
If hospitalized, Discharge date	As event occurs	rae_hospitalized_end	Date in MDY format	Form 16	765
RAE Medra Term	As event occurs	rae_medra_code	text	Form 18	941
What is the final status of the event?	As event occurs	rae_final_status	1=Resolved without residual deficits 2+Resolved with residual deficits 3=Died 4=Unknown [This should only be marked when the site is unable to make contact with the participant or proxy or to obtain information in any other way.]	Form 18	942
Date of resolution	As event occurs	rae_final_resolution_date	Date in MDY format	Form 18	943
Date of death	As event occurs	rae_final_died_date	Date in MDY format	Form 18	944
Cause of death	As event occurs	rae_final_died_cause	text	Form 18	945
Severity	As event occurs	rae_final_severity	1-Mild 2-Moderate 3-Severe 4-Life threatening 5-Fatal	Form 18	947
Relationship of the adverse event to research	As event occurs	rae_final_research_rel	1-Unrelated 2-Unlikely 3-Possible 4-Probable 5-Definite	Form 18	948