

SUPPLEMENT

Supplementary Table 1

BP Measure	Outcome Measure	<i>B</i>	β	p-value	95% CI
Pulse pressure	Global WMH	0.079	0.215	0.020*	(0.013, 0.145)
	Frontal WMH	0.018	0.112	0.229	(-0.011, 0.047)
	Temporal WMH	0.012	0.200	0.035*	(0.001, 0.023)
	Parietal WMH	0.017	0.233	0.012*	(0.004, 0.030)
	Occipital WMH	0.026	0.247	0.006*	(0.008, 0.045)
	Cortical microbleeds ^λ	-0.010	0.990	0.706	(0.942, 1.041)
	Enlarged perivascular spaces	0.075	0.172	0.080	(-0.009, 0.158)
	Infarcts ^λ	0.019	1.019	0.361	(0.978, 1.062)
	Left EC thickness	0.003	0.078	0.396	(-0.003, 0.008)
	Right EC thickness	0.001	0.022	0.812	(-0.006, 0.007)
	Clinical Dementia Diagnosis	0.017	1.017	0.259	(0.987, 1.049)

Sensitivity analysis: excluding participants treated with anti-hypertensive or anti-hypotensive medication. Regression model: Outcome measure ~ BP measure + age + intercept.

* Significant with a p-value < 0.05

^λ For these dichotomous dependent variables, logistic regression was applied. β = Exponential (β) and 95%CI = 95% CI for Exponential (β)

Supplementary Table 2

BP Variable	Outcome Marker	<i>B</i>	β	p-value	95% CI
Systolic BP	Global WMH	0.048	0.153	0.087	(-0.007, 0.103)
	Frontal WMH	0.008	0.056	0.532	(-0.017, 0.032)
	Temporal WMH	0.009	0.179	0.050	(0.000, 0.018)
	Parietal WMH	0.010	0.167	0.063	(-0.001, 0.021)
	Occipital WMH	0.016	0.176	0.042*	(0.001, 0.032)
	Cortical microbleeds ^λ	-0.016	0.984	0.450	(0.945, 1.025)
	Enlarged Perivascular spaces	0.054	0.139	0.134	(-0.017, 0.125)
	Infarcts ^λ	0.015	1.015	0.423	(0.979, 1.052)
	Left EC thickness	0.002	0.061	0.488	(-0.003, 0.007)
	Right EC thickness	0.001	0.033	0.719	(-0.004, 0.006)
	Clinical Dementia Diagnosis	0.016	1.016	0.224	(0.990, 1.044)
Diastolic BP	Global WMH	-0.007	-0.015	0.871	(-0.095, 0.080)
	Frontal WMH	-0.010	-0.046	0.614	(-0.048, 0.028)
	Temporal WMH	0.004	0.051	0.582	(-0.010, 0.018)
	Parietal WMH	-0.001	-0.010	0.912	(-0.018, 0.016)
	Occipital WMH	0.000	0.000	1.000	(-0.025, 0.025)
	Cortical microbleeds	-0.023	0.008	0.212	(0.914, 1.044)
	Enlarged perivascular spaces	-0.005	-0.009	0.921	(-0.112, 0.101)
	Infarcts ^λ	-0.003	0.997	0.907	(0.945, 1.052)
	Left EC thickness	-0.002	-0.045	0.618	(-0.010, 0.006)
	Right EC thickness	0.000	0.002	0.984	(-0.008, 0.009)
	Clinical Dementia Diagnosis	0.009	1.009	0.633	(-0.973, 1.045)
	Global WMH	0.032	0.068	0.454	(-0.052, 0.115)

Mean Arterial Pressure	Frontal WMH	0.000	-0.001	0.992	(-0.037, 0.036)
	Temporal WMH	0.009	0.123	0.184	(-0.004, 0.023)
	Parietal WMH	0.007	0.078	0.393	(-0.009, 0.023)
	Occipital WMH	0.012	0.089	0.313	(-0.012, 0.036)
	Cortical microbleeds	-0.027	0.974	0.407	(0.914, 1.037)
	Enlarged perivascular spaces	0.035	0.062	0.509	(-0.070, 0.139)
	Infarcts ^λ	0.009	1.009	0.746	(0.957, 1.064)
	Left EC thickness	0.000	0.002	0.978	(-0.008, 0.008)
	Right EC thickness	0.001	0.018	0.845	(-0.008, 0.009)
	Clinical Dementia Diagnosis	0.016	1.017	0.376	(0.980, 1.054)

Regression model: Outcome measure ~ BP measure + age + intercept.

* For these dichotomous dependent variables, logistic regression was applied. β = Exponential (β) and 95%CI = 95% CI for Exponential (β)