

## **Supplementary information**

### **Performance of plasma phosphorylated tau 181 and 217 in the community**

Michelle M. Mielke, PhD<sup>1,2,3</sup>, Jeffrey L. Dage, PhD<sup>4</sup>, Ryan D. Frank, MS<sup>5</sup>, Alicia Algeciras-Schimnick, PhD<sup>6</sup>, David S. Knopman, MD<sup>2</sup>, Val J. Lowe, MD<sup>7</sup>, Guojun Bu, PhD<sup>8</sup>, Prashanthi Vemuri, PhD<sup>7</sup>, Jonathan Graff-Radford, MD<sup>2</sup>, Clifford R. Jack Jr, MD<sup>7</sup>, Ronald C. Petersen, MD, PhD<sup>1,2</sup>

**Supplementary Table 1** Corresponding pair-wise associations for plasma P-tau181 and P-tau217 levels by amyloid (A) and tau (T) PET

**Supplementary Table 2** Predictive accuracy of continuous plasma P-tau181 and P-tau217, and age, sex, and *APOE* for predicting abnormal amyloid PET

**Supplementary Table 3** Predictive accuracy of continuous Plasma P-tau181 and P-tau217, and age, sex, and *APOE* for predicting abnormal tau PET temporal meta region of interest

**Supplementary Table 4** Predictive accuracy of continuous Plasma P-tau181 and P-tau217, and age, sex, and *APOE* for predicting abnormal entorhinal cortex (ERC) tau PET region of interest

**Supplementary Table 5** Associations with plasma P-tau181 using unadjusted and multivariable linear regression models

**Supplementary Table 6** Associations with plasma P-tau217 using unadjusted and multivariable linear regression models

**Supplementary Table 7** Age and sex-adjusted associations with P-tau 181 and P-tau 217 by clinical diagnosis

**Supplementary Table 1 | Corresponding pair-wise associations for plasma P-tau181 and P-tau217 levels by amyloid (A) and tau (T) PET**

	A-T-	A+T-	A-T+	A+T+	Overall p-value	A-T- vs A+T-	A-T- vs A-T+	A-T- vs A+T+	A+T- vs A-T+	A+T- vs A+T+	A-T+ vs A+T+
All											
N	296	88	54	56							
P-tau181	0.88 (0.71, 1.03)	1.05 (0.89, 1.47)	0.82 (0.69, 1.01)	1.47 (1.13, 1.91)	<.001	<.001	0.347	<.001	<.001	<.001	<.001
P-tau217	0.12 (0.10, 0.15)	0.20 (0.14, 0.26)	0.13 (0.10, 0.17)	0.29 (0.19, 0.42)	<.001	<.001	0.157	<.001	<.001	<.001	<.001
CU											
N	281	82	52	46							
P-tau181	0.88 (0.72, 1.03)	1.05 (0.90, 1.47)	0.82 (0.69, 1.02)	1.42 (1.19, 1.73)	<.001	<.001	0.389	<.001	<.001	<.001	<.001
P-tau217	0.12 (0.10, 0.15)	0.19 (0.14, 0.26)	0.13 (0.10, 0.17)	0.28 (0.18, 0.36)	<.001	<.001	0.119	<.001	<.001	<.001	<.001
MCI											
N	15	6	2	9							
P-tau181	0.89 (0.63, 1.03)	1.00 (0.74, 1.38)	0.80 (0.72, 0.87)	2.02 (1.00, 2.74)	<.001	0.119	0.35	<.001	0.161	0.02	0.017
P-tau217	0.14 (0.11, 0.16)	0.22 (0.12, 0.25)	0.12 (0.11, 0.13)	0.43 (0.24, 0.54)	<.001	0.058	0.41	<.001	0.161	0.02	0.018

CU, cognitively unimpaired; MCI, Mild cognitive impairment. P-values are from two-sided Kruskal -Wallis tests (for the overall p-value) and Wilcoxon rank sum tests for the pairwise tests. The p-values were not adjusted for multiple comparisons.

**Supplementary Table 2 | Predictive accuracy of continuous plasma P-tau181 and P-tau217, and age, sex, and *APOE* for predicting abnormal amyloid PET**

Variable (s)	All AUROC	CU only AUROC	MCI only AUROC
<b>Unadjusted</b>			
P-tau181	0.805 (0.777, 0.834)	0.784 (0.751, 0.817)	0.840 (0.775, 0.904)
P-tau217	0.855 (0.831, 0.880)	0.837 (0.808, 0.867)	0.884 (0.828, 0.939)
<b>Age Adjusted</b>			
Age	0.751 (0.723, 0.780)	0.735 (0.703, 0.767)	0.737 (0.640, 0.835)
Age + P-tau181	0.841 (0.817, 0.865)	0.820 (0.791, 0.848)	0.870 (0.807, 0.933)
Age + P-tau217	0.878 (0.856, 0.899)	0.860 (0.834, 0.886)	0.903 (0.852, 0.953)
<b>Age + Sex Adjusted</b>			
Age + Sex	0.754 (0.726, 0.783)	0.738 (0.706, 0.770)	0.741 (0.643, 0.838)
Age + Sex + P-tau181	0.842 (0.819, 0.866)	0.821 (0.793, 0.849)	0.872 (0.809, 0.935)
Age + Sex + P-tau217	0.880 (0.858, 0.901)	0.863 (0.837, 0.888)	0.903 (0.851, 0.954)
<b>Age + Sex + APOE Adjusted</b>			
Age + Sex + <i>APOE</i>	0.808 (0.782, 0.834)	0.788 (0.758, 0.819)	0.815 (0.728, 0.902)
Age + Sex + <i>APOE</i> + P-tau181	0.859 (0.836, 0.881)	0.839 (0.812, 0.866)	0.884 (0.823, 0.945)
Age + Sex + <i>APOE</i> + P-tau217	0.886 (0.865, 0.907)	0.869 (0.844, 0.894)	0.910 (0.859, 0.960)

Abnormal amyloid PET was defined as standard uptake value ratio (SUVR)>1.48 using PiB-PET.

AUROC, Area under the receiver operating characteristic; CU, cognitively unimpaired; MCI, mild cognitive impairment.

**Supplementary Table 3 | Predictive accuracy of continuous plasma P-tau181 and P-tau217, and age, sex, and APOE for predicting abnormal tau PET temporal meta region of Interest\***

Variable(s)	All AUROC	CU only AUROC	MCI only AUROC
<b>Unadjusted</b>			
P-tau181	0.660 (0.580, 0.739)	0.650 (0.566, 0.734)	0.681 (0.425, 0.937)
P-tau217	0.694 (0.616, 0.771)	0.684 (0.600, 0.767)	0.715 (0.463, 0.967)
<b>Age Adjusted</b>			
Age	0.784 (0.731, 0.837)	0.772 (0.714, 0.829)	0.797 (0.627, 0.967)
Age + P-tau181	0.797 (0.743, 0.851)	0.786 (0.727, 0.845)	0.836 (0.674, 0.997)
Age + P-tau217	0.800 (0.747, 0.852)	0.788 (0.731, 0.846)	0.816 (0.652, 0.980)
<b>Age + Sex Adjusted</b>			
Age + Sex	0.788 (0.736, 0.839)	0.776 (0.721, 0.832)	0.787 (0.614, 0.960)
Age + Sex + P-tau181	0.800 (0.747, 0.852)	0.789 (0.732, 0.845)	0.831 (0.671, 0.991)
Age + Sex + P-tau217	0.803 (0.751, 0.854)	0.793 (0.738, 0.848)	0.816 (0.650, 0.983)
<b>Age + Sex + APOE Adjusted</b>			
Age + Sex + APOE	0.788 (0.737, 0.840)	0.776 (0.720, 0.832)	0.792 (0.621, 0.963)
Age + Sex + APOE + P-tau181	0.801 (0.749, 0.853)	0.791 (0.735, 0.847)	0.826 (0.660, 0.992)
Age + Sex + APOE + P-tau217	0.806 (0.756, 0.857)	0.797 (0.742, 0.851)	0.821 (0.655, 0.987)

Abnormal tau PET meta region of interest (ROI) was defined as standard uptake value ratio (SUVR) $\geq 1.29$  using AV1451, and included the amygdala, entorhinal cortex, fusiform, parahippocampal, and inferior temporal and middle temporal gyri. AUROC, Area under the receiver operating characteristic; CU, cognitively unimpaired; MCI, mild cognitive impairment.

**Supplementary Table 4 | Predictive accuracy of continuous plasma P-tau181 and P-tau217, and age, sex, and *APOE* for predicting abnormal entorhinal cortex (ERC) tau PET region of interest**

Variable	All AUROC	CU only AUROC	MCI only AUROC
<b>Unadjusted</b>			
P-tau181	0.827 (0.760, 0.894)	0.814 (0.738, 0.890)	0.870 (0.702, 1.000)
P-tau217	0.857 (0.794, 0.919)	0.842 (0.770, 0.915)	0.911 (0.775, 1.000)
<b>Age Adjusted</b>			
Age	0.801 (0.750, 0.851)	0.777 (0.722, 0.833)	0.891 (0.776, 1.000)
Age + P-tau181	0.887 (0.848, 0.926)	0.873 (0.829, 0.917)	0.953 (0.887, 1.000)
Age + P-tau217	0.893 (0.853, 0.932)	0.880 (0.835, 0.924)	0.943 (0.867, 1.000)
<b>Age + Sex Adjusted</b>			
Age + Sex	0.800 (0.748, 0.852)	0.776 (0.719, 0.834)	0.891 (0.777, 1.000)
Age + Sex + P-tau181	0.886 (0.844, 0.927)	0.871 (0.823, 0.919)	0.948 (0.873, 1.000)
Age + Sex + P-tau217	0.889 (0.845, 0.932)	0.875 (0.825, 0.925)	0.943 (0.863, 1.000)
<b>Age + Sex + APOE Adjusted</b>			
Age + Sex + APOE	0.805 (0.754, 0.855)	0.779 (0.722, 0.837)	0.922 (0.830, 1.000)
Age + Sex + APOE + P-tau181	0.885 (0.843, 0.927)	0.869 (0.821, 0.918)	0.948 (0.866, 1.000)
Age + Sex + APOE + P-tau217	0.887 (0.843, 0.931)	0.873 (0.823, 0.924)	0.948 (0.866, 1.000)

Abnormal ERC tau PET was defined as standard uptake value ratio (SUVR) $\geq 1.27$  using AV1451.

AUROC, Area under the receiver operating characteristic; CU, cognitively unimpaired; MCI, mild cognitive impairment.

**Supplementary Table 5 | Associations with plasma P-tau181 using unadjusted and multivariable linear regression models**

Characteristic	Unadjusted		Age+Sex Adjusted		Age+Sex+Amyloid PET Adjusted		Without CKD Age+Sex Adjusted	
	Mean (95% CI)	p-value	Mean (95% CI)	p-value	Mean (95% CI)	p-value	Mean (95% CI)	p-value
Education, per 5 years	-0.08 (-0.12, -0.05)	<.001	-0.02 (-0.05, 0.02)	0.334	-0.01 (-0.04, 0.02)	0.549	0.01 (-0.01, 0.04)	0.310
Any ApoE E4	0.21 (0.16, 0.25)	<.001	0.22 (0.18, 0.26)	<.001	0.01 (-0.03, 0.06)	0.601	0.22 (0.19, 0.25)	<.001
BMI <18.5 (ref 18.5-24.9)	0.06 (-0.21, 0.33)	0.67	-0.00 (-0.27, 0.26)	0.968	0.03 (-0.21, 0.28)	0.790	0.06 (-0.12, 0.24)	0.476
BMI 25.0-29.9 (ref 18.5-24.9)	-0.08 (-0.12, -0.03)	0.002	-0.06 (-0.11, -0.02)	0.007	-0.03 (-0.07, 0.02)	0.236	-0.09 (-0.12, -0.06)	<.001
BMI 30.0-34.9 (ref 18.5-24.9)	-0.19 (-0.25, -0.13)	<.001	-0.14 (-0.20, -0.09)	<.001	-0.12 (-0.18, -0.07)	<.001	-0.12 (-0.16, -0.08)	<.001
BMI 35.0-39.9 (ref 18.5-24.9)	-0.20 (-0.29, -0.12)	<.001	-0.09 (-0.18, -0.01)	0.032	-0.06 (-0.15, 0.02)	0.143	-0.14 (-0.20, -0.08)	<.001
BMI 40+ (ref 18.5-24.9)	-0.29 (-0.42, -0.15)	<.001	-0.08 (-0.21, 0.06)	0.264	-0.04 (-0.18, 0.09)	0.537	-0.13 (-0.23, -0.04)	0.005
BDI depression	0.04 (-0.04, 0.12)	0.34	0.03 (-0.05, 0.11)	0.471	0.03 (-0.05, 0.11)	0.401	0.02 (-0.04, 0.07)	0.601
BAI total score, per 5	0.06 (0.03, 0.08)	<.001	0.05 (0.02, 0.07)	<.001	0.02 (-0.01, 0.04)	0.140	0.05 (0.03, 0.07)	<.001
Current/former smoker	-0.03 (-0.07, 0.01)	0.18	-0.07 (-0.11, -0.03)	<.001	-0.07 (-0.10, -0.03)	<.001	-0.04 (-0.07, -0.02)	<.001
Charlson score, per 5	0.28 (0.25, 0.31)	<.001	0.16 (0.12, 0.19)	<.001	0.14 (0.10, 0.17)	<.001	0.11 (0.09, 0.14)	<.001
HTN	0.31 (0.27, 0.35)	<.001	0.12 (0.07, 0.16)	<.001	0.10 (0.06, 0.14)	<.001	0.07 (0.04, 0.10)	<.001
CKD	0.57 (0.50, 0.63)	<.001	0.45 (0.39, 0.52)	<.001	0.60 (0.53, 0.66)	<.001	- -	-
Dyslipidemia	0.18 (0.13, 0.22)	<.001	-0.02 (-0.07, 0.03)	0.350	-0.02 (-0.07, 0.03)	0.420	-0.03 (-0.06, 0.00)	0.060
DM	0.11 (0.06, 0.16)	<.001	0.02 (-0.03, 0.07)	0.378	0.04 (-0.01, 0.09)	0.077	0.02 (-0.02, 0.05)	0.310
Stroke	0.34 (0.27, 0.41)	<.001	0.20 (0.13, 0.27)	<.001	0.16 (0.10, 0.23)	<.001	-0.03 (-0.08, 0.02)	0.303
MI	0.37 (0.31, 0.42)	<.001	0.25 (0.19, 0.31)	<.001	0.23 (0.18, 0.29)	<.001	0.15 (0.11, 0.19)	<.001
AFib	0.26 (0.20, 0.32)	<.001	0.11 (0.05, 0.16)	<.001	0.09 (0.04, 0.15)	0.001	0.11 (0.06, 0.15)	<.001
Head trauma	0.10 (0.07, 0.14)	<.001	0.06 (0.03, 0.09)	<.001	0.02 (-0.01, 0.05)	0.153	0.10 (0.07, 0.13)	<.001
Cancer	0.15 (0.11, 0.19)	<.001	-0.00 (-0.04, 0.04)	0.992	-0.01 (-0.06, 0.03)	0.532	0.03 (0.00, 0.06)	0.034
Chemotherapy for cancer tx	0.03 (-0.03, 0.08)	0.33	-0.01 (-0.06, 0.05)	0.800	-0.06 (-0.11, -0.02)	0.007	-0.01 (-0.07, 0.04)	0.639
A+	0.63 (0.59, 0.67)	<.001	0.54 (0.50, 0.58)	<.001	0.07 (0.01, 0.12)	0.017	0.51 (0.48, 0.53)	<.001

A+, Elevated amyloid PET; AFib, atrial fibrillation; BAI total, Beck Anxiety Inventory; BDI dep, Beck Depression Inventory; BMI, body mass index; Chemotherapy for cancer tx, chemotherapy for those with a cancer diagnosis; CKD, chronic kidney disease; DM, diabetes mellitus; HTN, hypertension; MI, myocardial infarction.

P-values are from a 2-sided likelihood ratio test performed in a linear regression model. The p-values are not adjusted for multiple comparisons.

**Supplementary Table 6 | Associations with plasma P-tau 217 using unadjusted and multivariable linear regression models**

Characteristic	Unadjusted		Age+Sex Adjusted		Age+Sex+Amyloid PET Adjusted		Without CKD, Age+Sex Adjusted	
	Mean (95% CI)	p-value	Mean (95% CI)	p-value	Mean (95% CI)	p-value	Mean (95% CI)	p-value
Education, per 5 years	-0.10 (-0.13, -0.06)	<.001	-0.03 (-0.06, 0.01)	0.130	-0.02 (-0.05, 0.01)	0.251	0.01 (-0.01, 0.04)	0.302
Any ApoE E4	0.27 (0.23, 0.32)	<.001	0.28 (0.24, 0.33)	<.001	0.02 (-0.03, 0.06)	0.490	0.29 (0.26, 0.32)	<.001
BMI <18.5 (ref 18.5-24.9)	0.04 (-0.24, 0.32)	0.760	-0.02 (-0.29, 0.25)	0.900	0.02 (-0.23, 0.27)	0.863	0.05 (-0.15, 0.25)	0.640
BMI 25.0-29.9 (ref 18.5-24.9)	-0.11 (-0.16, -0.06)	<.001	-0.10 (-0.15, -0.06)	<.001	-0.06 (-0.10, -0.01)	0.01	-0.14 (-0.17, -0.11)	<.001
BMI 30.0-34.9 (ref 18.5-24.9)	-0.26 (-0.32, -0.21)	<.001	-0.21 (-0.27, -0.16)	<.001	-0.20 (-0.25, -0.14)	<.001	-0.20 (-0.25, -0.16)	<.001
BMI 35.0-39.9 (ref 18.5-24.9)	-0.23 (-0.32, -0.14)	<.001	-0.12 (-0.21, -0.03)	0.016	-0.09 (-0.17, -0.00)	0.038	-0.13 (-0.19, -0.06)	<.001
BMI 40+ (ref 18.5-24.9)	-0.40 (-0.54, -0.26)	<.001	-0.18 (-0.32, -0.05)	0.007	-0.16 (-0.30, -0.02)	0.019	-0.24 (-0.35, -0.14)	<.001
BDI depression	0.05 (-0.04, 0.13)	0.277	0.04 (-0.05, 0.12)	0.401	0.04 (-0.04, 0.12)	0.353	0.02 (-0.05, 0.08)	0.591
BAI total score, per 5	0.06 (0.03, 0.08)	<.001	0.05 (0.02, 0.07)	<.001	0.01 (-0.02, 0.03)	0.500	0.05 (0.03, 0.07)	<.001
Current/former smoker	-0.04 (-0.08, -0.00)	0.045	-0.09 (-0.13, -0.05)	<.001	-0.09 (-0.12, -0.05)	<.001	-0.06 (-0.09, -0.03)	<.001
Charlson score, per 5	0.28 (0.25, 0.31)	<.001	0.15 (0.11, 0.18)	<.001	0.12 (0.09, 0.16)	<.001	0.15 (0.12, 0.17)	<.001
HTN	0.25 (0.21, 0.30)	<.001	0.04 (-0.00, 0.09)	0.076	0.02 (-0.03, 0.06)	0.452	0.01 (-0.02, 0.04)	0.556
CKD	0.40 (0.33, 0.47)	<.001	0.27 (0.20, 0.34)	<.001	0.45 (0.39, 0.52)	<.001	- -	-
Dyslipidemia	0.18 (0.13, 0.23)	<.001	-0.03 (-0.08, 0.02)	0.281	-0.02 (-0.07, 0.03)	0.350	-0.04 (-0.07, -0.00)	0.040
DM	0.11 (0.06, 0.17)	<.001	0.02 (-0.03, 0.07)	0.424	0.05 (0.00, 0.10)	0.041	0.02 (-0.02, 0.06)	0.413
Stroke	0.33 (0.26, 0.41)	<.001	0.18 (0.11, 0.25)	<.001	0.14 (0.07, 0.20)	<.001	-0.01 (-0.06, 0.05)	0.846
MI	0.37 (0.31, 0.43)	<.001	0.24 (0.18, 0.30)	<.001	0.23 (0.17, 0.29)	<.001	0.16 (0.11, 0.20)	<.001
AFib	0.25 (0.19, 0.32)	<.001	0.09 (0.03, 0.15)	0.005	0.07 (0.02, 0.13)	0.011	0.13 (0.08, 0.17)	<.001
Head trauma	0.13 (0.09, 0.16)	<.001	0.09 (0.05, 0.12)	<.001	0.04 (0.01, 0.06)	0.024	0.11 (0.08, 0.15)	<.001
Cancer	0.17 (0.12, 0.21)	<.001	0.01 (-0.04, 0.05)	0.735	-0.01 (-0.05, 0.04)	0.767	0.03 (-0.00, 0.07)	0.057
Chemotherapy for cancer tx	0.06 (-0.01, 0.12)	0.082	0.02 (-0.04, 0.09)	0.455	-0.07 (-0.12, -0.02)	0.004	0.04 (-0.02, 0.11)	0.223
A+	0.75 (0.71, 0.79)	<.001	0.66 (0.62, 0.71)	<.001	0.05 (-0.01, 0.11)	0.083	0.62 (0.59, 0.65)	<.001

A+, Elevated amyloid PET; AFib, atrial fibrillation; BAI total, Beck Anxiety Inventory; BDI dep, Beck Depression Inventory; BMI, body mass index; Chemotherapy for cancer tx, chemotherapy for those with a cancer diagnosis; CKD, chronic kidney disease; DM, diabetes mellitus; HTN, hypertension; MI, myocardial infarction.

P-values are from a two-sided likelihood ratio test performed in a linear regression model. The p-values are not adjusted for multiple comparisons.

**Supplementary Table 7 | Age and sex-adjusted associations with P-tau 181 and P-tau 217 by clinical diagnosis**

Characteristic	P-tau 181					P-tau 217				
	CU only		MCI/DEM		P-value	CU only		MCI/DEM		P-value
	Mean (95% CI)	P-value	Mean (95% CI)	P-value		Mean (95% CI)	P-value	Mean (95% CI)	P-value	
Age, per 10 years	0.11 (0.09, 0.13)	<.001	0.48 (0.11, 0.84)	0.014	0.10 (0.09, 0.12)	<.001	0.50 (0.14, 0.87)	0.007		
Male sex	0.02 (-0.04, 0.07)	0.520	0.24 (-0.47, 0.95)	0.513	0.03 (-0.02, 0.09)	0.229	0.18 (-0.53, 0.89)	0.629		
Education, per 5 years	0.01 (-0.04, 0.07)	0.650	0.00 (-0.60, 0.60)	0.989	0.01 (-0.05, 0.06)	0.778	-0.06 (-0.66, 0.54)	0.845		
Any ApoE E4	0.12 (0.06, 0.19)	<.001	0.15 (-0.58, 0.87)	0.689	0.18 (0.12, 0.25)	<.001	0.15 (-0.57, 0.88)	0.677		
BMI <18.5 (ref 18.5-24.9)	-0.23 (-0.65, 0.20)	0.289	1.50 (-3.08, 6.08)	0.518	-0.25 (-0.66, 0.17)	0.250	1.39 (-3.17, 5.95)	0.549		
BMI 25.0-29.9 (ref 18.5-24.9)	-0.07 (-0.14, -0.00)	0.043	0.23 (-0.58, 1.03)	0.578	-0.10 (-0.16, -0.03)	0.006	0.14 (-0.66, 0.94)	0.730		
BMI 30.0-34.9 (ref 18.5-24.9)	-0.10 (-0.18, -0.02)	0.012	-0.35 (-1.36, 0.67)	0.500	-0.15 (-0.23, -0.07)	<.001	-0.50 (-1.51, 0.51)	0.330		
BMI 35.0-39.9 (ref 18.5-24.9)	-0.12 (-0.23, -0.00)	0.046	0.31 (-2.36, 2.99)	0.820	-0.11 (-0.22, 0.00)	0.064	0.49 (-2.17, 3.15)	0.720		
BMI 40+ (ref 18.5-24.9)	-0.11 (-0.26, 0.05)	0.180	0.10 (-2.02, 2.22)	0.933	-0.16 (-0.31, -0.00)	0.041	-0.32 (-2.43, 1.79)	0.771		
BDI depression	-0.01 (-0.13, 0.11)	0.878	-0.28 (-1.36, 0.80)	0.620	-0.00 (-0.12, 0.12)	0.936	-0.32 (-1.40, 0.75)	0.563		
BAI total score, per 5	0.01 (-0.03, 0.05)	0.619	-0.06 (-0.40, 0.28)	0.730	0.00 (-0.04, 0.04)	0.956	-0.06 (-0.39, 0.28)	0.742		
Current/former smoker	-0.06 (-0.08, -0.03)	<.001	-0.09 (-0.33, 0.16)	0.471	-0.08 (-0.11, -0.05)	<.001	-0.05 (-0.29, 0.20)	0.705		
Charlson score, per 5	0.16 (0.10, 0.21)	<.001	0.02 (-0.55, 0.58)	0.945	0.12 (0.06, 0.17)	<.001	0.05 (-0.51, 0.61)	0.856		
HTN	0.07 (0.01, 0.14)	0.027	0.34 (-0.56, 1.24)	0.456	0.01 (-0.05, 0.08)	0.675	0.21 (-0.69, 1.12)	0.638		
CKD	0.37 (0.26, 0.48)	<.001	1.61 (0.51, 2.70)	0.004	0.15 (0.04, 0.26)	0.008	1.49 (0.40, 2.59)	0.007		
Dyslipidemia	-0.05 (-0.12, 0.02)	0.177	0.15 (-0.74, 1.04)	0.741	-0.04 (-0.11, 0.03)	0.220	0.07 (-0.81, 0.96)	0.870		
DM	0.05 (-0.03, 0.13)	0.228	-0.16 (-0.99, 0.68)	0.711	0.03 (-0.05, 0.11)	0.501	-0.20 (-1.03, 0.63)	0.632		
Stroke	0.07 (-0.06, 0.19)	0.277	1.22 (0.21, 2.22)	0.020	0.05 (-0.07, 0.17)	0.443	1.11 (0.10, 2.11)	0.033		
MI	0.09 (-0.02, 0.19)	0.114	1.06 (0.16, 1.97)	0.023	0.06 (-0.05, 0.16)	0.272	0.96 (0.06, 1.87)	0.044		
AFib	0.08 (-0.02, 0.19)	0.113	-0.06 (-0.95, 0.83)	0.890	0.04 (-0.06, 0.14)	0.446	-0.03 (-0.91, 0.86)	0.950		
Head trauma	0.04 (-0.03, 0.11)	0.256	0.09 (-0.21, 0.39)	0.563	0.03 (-0.04, 0.10)	0.403	0.25 (-0.08, 0.58)	0.141		
Cancer	0.04 (-0.03, 0.11)	0.308	-0.45 (-1.22, 0.31)	0.254	0.04 (-0.03, 0.11)	0.268	-0.46 (-1.22, 0.30)	0.239		
Chemotherapy for cancer tx	0.05 (-0.10, 0.19)	0.529	-0.10 (-0.55, 0.35)	0.673	0.01 (-0.15, 0.16)	0.920	0.29 (-0.26, 0.84)	0.31		
A+	0.42 (0.36, 0.49)	<.001	1.01 (0.13, 1.88)	0.020	0.52 (0.45, 0.59)	<.001	1.19 (0.32, 2.05)	0.007		

CU, cognitively unimpaired; MCI, mild cognitive impairment; A+, Elevated amyloid PET; AFib, atrial fibrillation; BAI total, Beck Anxiety Inventory; BDI dep, Beck Depression Inventory; BMI, body mass index; Chemotherapy for cancer tx, chemotherapy for those with a cancer diagnosis CKD, chronic kidney

disease; DM, diabetes mellitus; HTN, hypertension; MI, myocardial infarction. P-values are from a two-sided likelihood ratio test performed in a linear regression model. The p-values are not adjusted for multiple comparisons.