Supplementary Table 8. Sensitivity analysis of temporal trends in secondary prevention indicator attainment: comparison of primary cohort and registry-confirmed recurrent ischemic stroke cases, Korean Stroke Registry 2018–2023

Indicator	Cohort	2018 (%)	2023 (%)	OR/year (95% CI)	*P*
Antithrombotic use	Primary (full, n=24,183)	74.6	79.4	1.05 (1.01–1.09)	0.027
	Registry-confirmed (n=6,387)	87.8	90.4	1.02 (0.96–1.09)	0.527
LDL-C <70 mg/dL	Primary (full, n=24,183)	32.6	41.9	1.08 (1.06–1.11)	<0.001
	Registry-confirmed (n=6,387)	37.5	47.7	1.10 (1.05–1.14)	<0.001
HbA1c <7.0% (DM only)	Primary (full, n=10,987)	63.3	62.1	0.99 (0.97–1.02)	0.700
	Registry-confirmed (n=2,859)	67.5	63.5	0.97 (0.93–1.02)	0.229
Non-current smoking	Primary (full, n=24,183)	69.5	73.3	1.03 (0.99–1.07)	0.178
	Registry-confirmed (n=6,387)	69.5	74.1	1.02 (0.98–1.07)	0.347
Normal weight	Primary (full, n=24,183)	62.0	61.8	1.00 (0.98–1.02)	0.766
	Registry-confirmed (n=6,387)	62.5	62.0	1.00 (0.97–1.03)	0.759
OAC use (known AF)	Primary (known AF, n=4,441)	65.3	73.3	1.08 (1.03–1.14)	0.005

Registry-confirmed recurrent ischemic stroke was defined as admissions linked to a prior index hospitalization at the same participating institution via the Korean Stroke Registry unique patient identifier (suffix ≥2; n=6,387, 26.4% of all recurrences), in contrast to history-confirmed recurrences identified via admission history documentation alone. Displayed annual proportions for the five primary prevention indicators were directly age-standardized to the age distribution of the overall 2018 Korean Stroke Registry analytic cohort using 10-year age strata, with the same reference distribution applied to the primary and registry-confirmed cohorts. Temporal trends in each indicator were assessed using population-averaged GEE logistic models with hospitals as clusters (exchangeable working correlation); calendar year (2018–2023) was modeled as a continuous predictor, and the exponentiated year coefficient is reported as the OR per 1-year increment with 95% CIs. The five primary prevention indicators showed directionally consistent trends across the primary and registry-confirmed cohorts, supporting robustness of the main findings to the method of recurrence ascertainment. The higher baseline prevalence of antithrombotic therapy in registry-confirmed cases produced a ceiling effect relative to the full cohort. OAC use in patients with pre-existing AF (n=4,441) is shown for the primary cohort only; a registry-confirmed sub-analysis of OAC was not pursued given the smaller subgroup size.

OR, odds ratio; CI, confidence interval; LDL-C, low-density lipoprotein cholesterol; HbA1c, glycated hemoglobin; DM, diabetes mellitus; OAC, oral anticoagulant; AF, atrial fibrillation; GEE, generalized estimating equation.