Supplementary Table 11. Secondary prevention indicator attainment according to inter-stroke interval among registry-confirmed recurrent ischemic stroke cases (Korean Stroke Registry, 2018–2023)

Characteristics	0–1 yr	2–3 yr	≥4 yr	Adjusted OR, 2–3 vs. 0–1 yr	Adjusted OR, ≥4 vs. 0–1 yr	*P* for overall association
Total	3,944 (61.8)	1,524 (23.9)	919 (14.4)			
DM patients*	1,755 (44.5)	660 (43.3)	444 (48.3)			
AF patients†	854 (21.7)	488 (32.0)	288 (31.3)			
Any antithrombotic therapy (antiplatelet agent or anticoagulant)‡	94.4 (93.7–95.1)	86.0 (84.2–87.7)	87.5 (85.2–89.5)	0.37 (0.31–0.44)	0.40 (0.31–0.50)	<0.001
LDL-C <70 mg/dL	49.5 (47.9–51.0)	43.2 (40.7–45.7)	41.1 (38.0–44.3)	0.77 (0.69–0.86)	0.62 (0.50–0.77)	<0.001
HbA1c <7.0% (DM patients only)	61.3 (59.0–63.5)	58.2 (54.4–61.9)	55.6 (51.0–60.2)	0.84 (0.69–1.03)	0.76 (0.63–0.93)	0.020
Non-current smoking	71.1 (69.7–72.5)	71.9 (69.6–74.1)	70.3 (67.3–73.2)	1.01 (0.87–1.17)	0.93 (0.78–1.11)	0.745
Normal weight (BMI 18.5–24.9 kg/m²)	63.6 (62.1–65.1)	61.8 (59.3–64.2)	63.0 (59.8–66.1)	0.88 (0.79–0.99)	0.95 (0.80–1.13)	0.089
Oral anticoagulant use (known AF patients only)	73.7 (70.6–76.5)	68.2 (64.0–72.2)	74.7 (69.3–79.3)	0.79 (0.63–1.00)	1.00 (0.73–1.38)	0.127

Data are presented as crude proportions (%) with 95% confidence intervals in parentheses, unless otherwise indicated. Values in the total n (%) row indicate the number and proportion of patients in each inter-stroke interval category among all registry-confirmed recurrent ischemic stroke cases (n=6,387). Values in the n of DM patients, n (%) and n of known AF patients, n (%) rows indicate the number and proportion within each interval category. Inter-stroke interval was categorized as 0–1, 2–3, and ≥4 years. Adjusted ORs were estimated using population-averaged generalized estimating equation logistic models with hospitals as clusters (exchangeable working correlation), with 0–1 years as the reference category. Models were adjusted for age, sex, calendar year, TOAST etiologic subtype, pre-stroke modified Rankin Scale, hypertension, DM, and AF as appropriate. *P* for overall association was obtained from a joint Wald test of the interval-category terms.

OR, odds ratio; DM, diabetes mellitus; AF, atrial fibrillation; LDL-C, low-density lipoprotein cholesterol; HbA1c, glycated hemoglobin; BMI, body mass index; TOAST, Trial of Org 10172 in Acute Stroke Treatment; HIRA, Health Insurance Review and Assessment Service; DUR, Drug Utilization Review.

*DM was defined as prior physician-diagnosed DM or newly identified diabetes at admission (HbA1c ≥6.5%); †Restricted to patients with known pre-existing AF; ‡Antithrombotic therapy use was ascertained by self-report at admission and cross-referenced against the HIRA DUR system at data entry.

Supplementary Table 12. Sensitivity analysis of case-based upper-bound projections for potentially preventable recurrent strokes under varying RRR assumptions

Implementation gap (reference population)	Non-attainment prevalence (%)	RRR scenario	Applied RRR (%)	Gap cases/year (cases×non-attainment)	Projected events/year (gap cases×RRR)
Antithrombotic non-use (full cohort, n=24,183)	20.7	Low	15	834	125
		Base*	22	834	183
		High	30	834	250
OAC non-use in AF (known AF, n=4,441)	28.4	Low	50	210	105
		Base*	60	210	126
		High	70	210	147
LDL-C ≥70 mg/dL in LAA (LAA, n=8,817)	62.3	Low	15	916	137
		Base*	22	916	201
		High	30	916	275

Case-based projections are calculated as (cases per year)×(non-attainment prevalence)×(RRR), where cases per year=cohort size/6 years. Reference populations: antithrombotic non-use, full recurrent stroke cohort (n=24,183); OAC non-use, known AF subgroup (n=4,441); LDL-C gap, LAA subgroup (n=8,817). These projections are case-based upper-bound estimates, not population-attributable fractions, and must not be summed across indicators. All estimates are exploratory, noncausal, upper-bound policy projections. They assume direct applicability of trial-derived RRRs, absence of competing risks, no interaction among indicators, and full achievability of indicator attainment. Values in the Gap cases/year and Projected events/year columns are approximate estimates rounded to the nearest whole number and should be interpreted as order-of-magnitude projections rather than precise predictions.

RRR, relative risk reduction; OAC, oral anticoagulant; AF, atrial fibrillation; LDL-C, low-density lipoprotein cholesterol; LAA, large-artery atherosclerosis.

*Base-case RRR values used in the primary analysis were 22% for antithrombotic non-use, based on the Antithrombotic Trialists' Collaboration; 60% for OAC non-use in AF, based on AF anticoagulation trial evidence; and 22% for LDL-C ≥70 mg/dL in LAA, based on Treat Stroke to Target. Low and high scenarios represent prespecified sensitivity ranges and do not imply statistical confidence intervals.