

Table S1 Baseline characteristics of the excluded and included patients

Characteristics	Excluded (n=5,370)	Included (n=9,796)	P value	ASD/HL estimator, %
Age, y	62.00 (54.00–70.00)	63.00 (55.00–70.00)	<0.0001	7.04
Men, n (%)	3,668 (68.31)	6,696 (68.35)	0.9505	0.11
BMI, kg/m ²	24.47 (22.66–26.37)	24.49 (22.59–26.57)	0.3623	0.62
Medical history, n (%)				
Hypertension	3,404 (63.39)	6,090 (62.17)	0.1372	2.53
Diabetes mellitus	1,217 (22.66)	2,293 (23.41)	0.2985	1.77
Dyslipidemia	431 (8.03)	760 (7.76)	0.5577	0.10
Stroke or TIA	1,283 (23.89)	2,072 (21.15)	0.0001	5.23
Atrial fibrillation/flutter	316 (5.88)	703 (7.18)	0.0024	5.23
Peripheral vascular disease	51 (0.95)	67 (0.68)	0.0748	2.95
Heart failure	31 (4.32)	63 (4.47)	0.8704	0.75
Stroke type/subtype, n (%)				
IS	5,018 (93.45)	9,128 (93.18)	0.5345	1.06
TIA	352 (6.55)	668 (6.82)		
TOAST, n (%)				
Large-artery atherosclerosis	1,401 (26.09)	2,455 (25.06)	0.0019	6.51
Cardioembolism	307 (5.72)	610 (6.23)		
Small-vessel occlusion	1,189 (22.14)	1,976 (20.17)		
Other determined etiology	51 (0.95)	131 (1.34)		
Undetermined etiology	2,422 (45.10)	4,624 (47.20)		
Current smoker, n (%)	1,709 (31.82)	3,043 (31.06)	0.0003	7.14
Medication in hospital, n (%)				
Cholesterol-lowering agents	5,178 (97.15)	9,328 (95.94)	0.0001	6.51
Antihypertensive agents	2,542 (47.69)	4,458 (45.85)	0.0302	3.69
Hypoglycemic agents	1,310 (24.58)	2,482 (25.53)	0.1995	2.19
Antiplatelet agents	5,170 (97.00)	9,443 (97.12)	0.6706	0.72
Anticoagulant agents	441 (8.27)	1,105 (11.36)	<0.0001	9.40
NIHSS score on admission	3 [1–6]	3 [1–6]	0.0657	2.05
Time from onset to admission, h	13.00 (3.00–40.00)	14.00 (3.00–46.00)	0.0616	4.37
Lipid level				
TC, mmol/L	3.89 (3.28–4.63)	4.02 (3.33–4.77)	<0.0001	9.48
LDL-C, mmol/L	2.24 (1.69–2.89)	2.35 (1.74–3.02)	<0.0001	9.44
HDL-C, mmol/L	0.93 (0.77–1.10)	0.94 (0.78–1.13)	0.0064	7.22
TG, mmol/L	1.36 (1.04–1.86)	1.37 (1.03–1.88)	0.7680	0.79
FBG, mmol/L	5.43 (4.84–6.75)	5.59 (4.92–6.95)	<0.0001	5.91
eGFR, mL/min/1.73 m ²	93.49 (82.24–102.45)	92.90 (81.31–101.66)	0.0108	3.64
hs-CRP, mg/L	1.78 (0.83–4.84)	1.78 (0.82–4.66)	0.5579	1.55
ALT, U/L	18.00 (13.00–25.80)	18.00 (13.00–26.00)	0.1239	1.41
AST, U/L	19.00 (16.00–24.00)	19.00 (16.00–24.00)	0.0644	4.10

Continuous variables were presented as medians along with IQR; categorical variables were presented as percentages. Given the extensive data set, comparison using $P < 0.05$ indicated statistical significance but might not have any clinical significance. Therefore, baseline characteristics were compared using absolute standardized differences (for percentages) or HL estimator (for median), with indicator $\geq 10\%$ considered to be clinically significant. BMI, body mass index; TIA, transient ischemic attack; IS, ischemic stroke; NIHSS, The National Institutes of Health Stroke Scale; TC, total cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglyceride; FBG, fasting blood glucose; eGFR, estimated glomerular filtration rate; hs-CRP, high-sensitivity C-reactive protein; ALT, alanine aminotransferase; AST, aspartate aminotransferase; ASD, absolute standardized difference; HL, Hodges-Lehmann; IQR, interquartile range.

Table S2 Sensitivity analysis for the association between LDH and outcomes by excluding patients with cancer of infection

Outcomes	Quartiles of LDH				P for trend
	Q1	Q2	Q3	Q4	
Within 3 months					
Death	Reference	1.19 (0.60–2.33)	1.52 (0.79–2.95)	2.40 (1.30–4.46)	0.0013
mRS 3–6	Reference	0.92 (0.74–1.14)	1.33 (1.08–1.63)	1.57 (1.27–1.94)	<0.0001
mRS 2–6	Reference	1.11 (0.94–1.30)	1.35 (1.15–1.59)	1.61 (1.36–1.90)	<0.0001
Within 1 year					
Death	Reference	1.12 (0.74–1.70)	1.43 (0.95–2.16)	2.26 (1.53–3.33)	<0.0001
mRS 3–6	Reference	1.12 (0.90–1.38)	1.28 (1.04–1.59)	1.61 (1.30–2.00)	<0.0001
mRS 2–6	Reference	1.11 (0.94–1.30)	1.27 (1.08–1.50)	1.51 (1.27–1.79)	<0.0001

Adjusted for age, gender, BMI, history of hypertension, diabetes, dyslipidemia, atrial fibrillation/flutter, stroke type, current smoke, TOAST, NHISS, antihypertensive agents, cholesterol-lowering agents, hypoglycemic agents, antiplatelet agents, anticoagulant agents, FBG, TC, LDL-C, HDL-C, TG, eGFR and hs-CRP. LDH, lactate dehydrogenase; mRS, modified Rankin Scale; BMI, body mass index; NHISS, The National Institutes of Health Stroke Scale; FBG, fasting blood glucose; TC, total cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglyceride; eGFR, estimated glomerular filtration rate; hs-CRP, high-sensitivity C-reactive protein.

Table S3 Subgroup analysis for the association of high LDH (Q4) with all-cause death and poor functional outcomes

Subgroups	All cause death		mRS 3–6		mRS 2–6	
	At 3 months	At 1 year	At 3 months	At 1 year	At 3 months	At 1 year
Age						
<60	2.57 (0.74–9.03)	2.56 (1.64–3.98)	2.06 (1.55–2.74)	2.35 (1.72–3.22)	1.74 (1.40–2.16)	1.85 (1.48–2.33)
≥60	2.84 (1.49–5.42)	2.72 (1.34–5.52)	1.69 (1.30–2.19)	1.64 (1.26–2.12)	1.74 (1.39–2.17)	1.52 (1.22–1.91)
P _{interaction}	0.3850		0.8264		0.8682	
Gender						
Female	3.28 (1.63–6.57)	2.63 (1.69–4.10)	1.95 (1.54–2.48)	2.04 (1.60–2.60)	1.80 (1.50–2.17)	1.97 (1.62–2.38)
Male	3.54 (1.14–10.95)	3.09 (1.43–6.68)	1.57 (1.12–2.22)	1.56 (1.09–2.24)	1.67 (1.25–2.22)	1.22 (0.91–1.64)
P _{interaction}	0.7456		0.1293		0.8904	
Stroke subtypes						
IS	2.67 (1.56–4.68)	2.51 (1.73–3.68)	1.82 (1.50–2.20)	1.91 (1.56–2.33)	1.77 (1.52–2.06)	1.72 (1.46–2.02)
TIA	–	–	1.40 (1.16–1.70)	0.51 (0.05–5.12)	1.34 (0.34–5.21)	0.73 (0.17–3.22)
P _{interaction}	–		0.7442		0.5584	
Time from onset to admission						
<24 h	3.39 (1.64–7.03)	2.98 (1.79–4.99)	1.84 (1.44–2.36)	1.81 (1.41–2.34)	1.77 (1.44–2.16)	1.70 (1.39–2.09)
≥24 h	3.42 (1.28–9.14)	2.46 (1.38–4.36)	1.49 (1.16–1.90)	1.91 (1.37–2.64)	1.64 (1.28–2.09)	1.68 (1.30–2.17)
P _{interaction}	0.7408		0.7439		0.4005	

Adjusted for BMI, history of hypertension, diabetes, dyslipidemia, atrial fibrillation/flutter, stroke type, current smoke, TOAST, NHISS, FBG, TC, LDL-C, HDL-C, TG, eGFR on admission, antihypertensive agents, cholesterol-lowering agents, hypoglycemic agents, antiplatelet agents, anticoagulant agents, and hs-CRP on admission other than variables for stratification. LDH, lactate dehydrogenase; mRS, modified Rankin Scale; IS, ischemic stroke; TIA, transient ischemic attack; BMI, body mass index; NHISS, The National Institutes of Health Stroke Scale; FBG, fasting blood glucose; TC, total cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglyceride; eGFR, estimated glomerular filtration rate; hs-CRP, high-sensitivity C-reactive protein.