Study	IH Yes	OS No	Yes	No				Odds rat with 95%		Weigh (%)
Bulwa, 2020	6	8	12	16			1.0	0[0.27,	3.66]	2.06
Naldi, 2023	230	176	2,768	2,445	-	ŀ	1.1	5 [0.94,	1.42]	83.45
Lu, 2019	16	8	80	25		_	0.6	3 [0.24,	1.63]	3.76
Matsubara, 2020	11	6	10	8		·	1.4	7 [0.38,	5.72]	1.87
Qiu, 2022	18	18	41	31			0.7	6 [0.34,	1.69]	5.37
Matsubara, 2019	8	2	ε	5			2.5	0 [0.37,	16.89]	0.95
Sano, 2020	15	4	119	35		<u> </u>	1.1	0 [0.34,	3.54]	2.55
Overall					•	•	1.1	1 [0.92,	1.34]	
Heterogeneity: τ^2 =	= 0.00	$, I^2 = 0$	0.00%,	$H^2 = 1.00$						
Test of $\theta_i = \theta_j$: Q(6)) = 3.2	27, p =	= 0.77							
Test of $\theta = 0$: $z = 1$.11, p	= 0.2	27							
					1/4 1	4	16			
landom-effects RE	EML m	nodel			1/4 1	4	10			A
		os	C Yes	:OS No	1/4 1	4	16	Odds ra with 95%		Weigh (%)
landom–effects RE	ін	os			1/4 1 				S CI	
landom–effects RE Study	IH Yes	OS No	Yes	No	1/4 1 		0.0	with 95%	3.36]	(%)
tandom–effects RE Study Bulwa, 2020	IH Yes 1	OS No 13	Yes 5	No 23	1/4 1		0.3	with 95% 35 [0.04,	3.36] 1.11]	(%) 1.21
tandom–effects RE Study Bulwa, 2020 Naldi, 2023	IH Yes 1 67	OS No 13 339	Yes 5 990	No 23 4,223	1/4 1 	-	0.0	with 95% 35 [0.04, 34 [0.64,	3.36] 1.11] 3.06]	(%) 1.21 83.87
tandom–effects RE Study Bulwa, 2020 Naldi, 2023 Lu, 2019	IH Yes 1 67 2	OS No 13 339 22	Yes 5 990 13	No 23 4,223 92	1/4 1 	•	0.3 0.8 	with 95% 35 [0.04, 34 [0.64, 64 [0.14,	3.36] 1.11] 3.06] 1.57]	(%) 1.21 83.87 2.53
tandom–effects RE Study Bulwa, 2020 Naldi, 2023 Lu, 2019 Matsubara, 2020	IH Yes 1 67 2 2	OS No 13 339 22 15	Yes 5 990 13 6	No 23 4,223 92 12	1/4 1 		0.3 0.6 0.2 1.	with 95% 35 [0.04, 34 [0.64, 64 [0.14, 27 [0.05,	3.36] 1.11] 3.06] 1.57] 2.57]	(%) 1.21 83.87 2.53 1.96
tandom–effects RE Study Bulwa, 2020 Naldi, 2023 Lu, 2019 Matsubara, 2020 Qiu, 2022	IH Yes 1 67 2 2 14	OS No 13 339 22 15 22	Yes 5 990 13 6 26	No 23 4,223 92 12 46	1/4 1 		0.0 0.8 	with 95% 35 [0.04, 34 [0.64, 64 [0.14, 27 [0.05, 13 [0.49,	3.36] 1.11] 3.06] 1.57] 2.57] 4.03]	(%) 1.21 83.87 2.53 1.96 9.06
tandom–effects RE Study Bulwa, 2020 Natdi, 2023 Lu, 2019 Matsubara, 2020 Qiu, 2022 Suyama, 2022	IH Yes 1 67 2 2 14 1	OS No 13 339 22 15 22 16	Yes 5 990 13 6 26 10	No 23 4,223 92 12 46 77	1/4 1 		0.0 0.8 	with 95% 35 [0.04, 34 [0.64, 64 [0.14, 27 [0.05, 13 [0.49, 48 [0.06,	3.36] 1.11] 3.06] 1.57] 2.57] 4.03]	1.21 83.87 2.53 1.96 9.06
tandom–effects RE Study Bulwa, 2020 Natdi, 2023 Lu, 2019 Matsubara, 2020 Qiu, 2022 Suyama, 2022 Overall	IH Yes 1 67 2 2 14 1 = 0.00	OS No 13 339 22 15 22 16 , I ² = -	Yes 5 990 13 6 26 10 0.00%	No 23 4,223 92 12 46 77	1/4 1 		0.0 0.8 	with 95% 35 [0.04, 34 [0.64, 64 [0.14, 27 [0.05, 13 [0.49, 48 [0.06,	3.36] 1.11] 3.06] 1.57] 2.57] 4.03]	(%) 1.21 83.87 2.53 1.96 9.06
tandom–effects RE Study Bulwa, 2020 Naldi, 2023 Lu, 2019 Matsubara, 2020 Qiu, 2022 Suyama, 2022 Overall Heterogeneity: τ ² :	IH Yes 1 67 2 2 14 1 = 0.000) = 3.0	OS No 13 339 22 15 22 16 $(, ^2 = ^2)$	Yes 5 990 13 6 26 10 0.00% = 0.70	No 23 4,223 92 12 46 77	1/4 1 		0.0 0.8 	with 95% 35 [0.04, 34 [0.64, 64 [0.14, 27 [0.05, 13 [0.49, 48 [0.06,	3.36] 1.11] 3.06] 1.57] 2.57] 4.03]	(%) 1.21 83.87 2.53 1.96 9.06

Supplementary Figure 9. Meta-analysis on stroke etiology. (A) Forest plot of odds ratio meta-analysis for cardioembolic mechanism of stroke among in-hospital onset stroke (IHOS) cases compared to community-onset stroke (COS) cases. (B) Forest plot of odds ratio meta-analysis for large artery atherosclerotic mechanism of stroke among IHOS cases compared to COS cases. Cl, confidence interval; REML, restricted maximum likelihood.

		HOS		COS						Hedges's g	Weight
Study	Ν	Mean	SD	Ν	Mean	SD				with 95% CI	(%)
Bulwa, 2020	14	13.9082	9.0612	28	14.643	5.4681			-	0.11 [-0.74, 0.52]	8.18
Naldi, 2023	406	16.1238	7.0677	5,213	15.65	6.6736				0.07 [-0.03, 0.17]	29.03
Lu, 2019	24	19.3505	8.1837	105	19.3519	6.7651			-	-0.00 [-0.44, 0.44]	13.11
Mönch, 2018	27	17.4951	5.0086	54	16.8361	6.5999				— 0.11 [-0.35, 0.56]	12.54
Qiu, 2022	36	16.9	7.5	72	18	8.4				-0.13 [-0.53, 0.26]	14.69
Suyama, 2022	17	12.3615	8.8922	87	19.6478	8.2924				-0.86 [-1.39, -0.33]	10.45
Sano, 2020	19	19.9192	5.6068	154	20.2975	8.9803				-0.04 [-0.52, 0.43]	12.01
Overall								•	+	-0.09 [-0.30, 0.12]	
Heterogeneity:	$\tau^{2} = 0$.	04, I ² = 52	.44%, H ²	= 2.10							
Test of $\theta_i = \theta_j$: C	Q(6) =	12.58, p =	0.05								
Test of $\theta = 0$: z	= -0.8	84, p = 0.4	0								
						-1	5 -1	5	0	-5	

Random-effects REML model

Supplementary Figure 10. Forest plot of the meta-analysis comparing National Institutes of Health Stroke Scale on admission in in-hospital onset stroke (IHOS) cases compared to community-onset stroke (COS) cases. Cl, confidence interval; SD, standard deviation; REML, restricted maximum likelihood.