

**Supplementary Material****Supplementary Table 1. Details of the treatment administered in the included studies.**<sup>(1-41)</sup>

Study ID	Study type	Total Participants	Definition of symptomatic ICH	Type of EVT	Type of AAT	Dose of AAT	≥ 3 passes(%), mean±SD or median (IQR)	Rescue or Concurrent AAT
Anadani et al. 2019 <sup>(1)</sup>	Prospective cohort	486	N/A	SR, CA	IA rtPA	3.0 - 5.0 mg up to 15 mg	≥3 passes: AAT 26.5% ST 37.3%	Rescue
Baik et al. 2021 <sup>(2)</sup>	Retrospective	114	ECASS criteria	SR+CA	IA urokinase	20,000 - 60,000 IU	N/A	Rescue
Berkhemer et al. 2015 <sup>(3)</sup>	Post hoc analysis RCT	191	ECASS criteria	SR	IA rtPA	5.0 mg single dose up to 30 mg	N/A	Rescue
Bracard et al. 2016 <sup>(4)</sup>	Post hoc analysis RCT	139	ECASS criteria	SR, CA	IA rtPA	3.0 - 10.0 mg	N/A	Rescue
Cappellari et al. 2021 <sup>(5)</sup>	Prospective cohort	506	ICH and NIHSS ≥1	SR, CA, SR + CA	IA rtPA	N/A	N/A	Concurrent
Collette et al. 2023 <sup>(36)</sup>	Prospective cohort	2263	Heidelberg Bleeding Classification	SR, CA	IA urokinase/rtPA	Urokinase - 250000IU, rTPA - 20 mg	≥3 passes: AAT 36.2% ST 35.8%	Concurrent

<b>Fischer et al. 2013<sup>(39)</sup></b>	Retrospective	169	PROACT-II criteria (ICH + NIHSS score increase $\geq 4$ )	SR	IA Urokinase	7500,000 IU	N/A	Rescue
<b>Goyal et al. 2015<sup>(6)</sup></b>	Post hoc analysis RCT	165	Determined clinically at the study site	SR	IA tPA	1.0 - 7.0 mg	N/A	N/A
<b>Gruber et al. 2019<sup>(7)</sup></b>	Retrospective	32	ECASS criteria	SR	IA tirofiban	10 $\mu\text{g}/\text{kg}$	N/A	Concurrent
<b>Guo et al. 2022<sup>(8)</sup></b>	Retrospective	821	ECASS criteria	SR, CA	IA tirofiban	0.25 - 0.5 mg	N/A	Concurrent or Rescue
<b>Heiferman et al. 2017<sup>(9)</sup></b>	Retrospective	40	Heidelberg Bleeding Classification	SR	IA rtPA	8.0 - 16.0 mg	N/A	Concurrent
<b>Huo et al. 2020<sup>(10)</sup></b>	Retrospective	207	ECASS criteria	SR, CA	IA tirofiban	0.25 - 1.0 mg	N/A	Rescue
<b>Huo et al. 2021<sup>(11)</sup></b>	Prospective	649	ECASS criteria	SR + CA	IA tirofiban	0.25 - 1.0 mg	N/A	Rescue
<b>Jang et al. 2021<sup>(12)</sup></b>	Retrospective	314	N/A	SR + CA	IA tirofiban	0.5 - 2.0 mg	N/A	Concurrent or Rescue
<b>Kaesmacher et al. 2020<sup>(13)</sup></b>	Prospective cohort	993	PROACT-II criteria (ICH + NIHSS $\geq 4$ or	SR	IA urokinase	250,000 - 500,000 IU	N/A	Rescue

			1-point increase in consciousness level on NIHSS)					
<b>Kim et al. 2020<sup>(14)</sup></b>	Retrospective	118	N/A	SR + CA	IA tirofiban	0.5 - 2.0 mg	N/A	Rescue
<b>Kohli et al. 2022<sup>(15)</sup></b>	Prospective cohort	271	N/A	SR + CA	IA rtPA	variable between 0 to >10mg	≥3 passes: AAT 11.5% ST 39.2%	Concurrent or Rescue
<b>Ma et al. 2021<sup>(16)</sup></b>	Prospective	201	Heidelberg Bleeding Classification	SR, CA	IA tirofiban	0.25-1.0 mg	AAT: 2.5±1.8 ST: 2.7±1.5	Rescue
<b>Ma et al. 2022<sup>(37)</sup></b>	Prospective cohort	892	Heidelberg Bleeding Classification	N/A	IA eptifibatide	135-180 micrograms/kg	AAT: 1 (1-2) ST: 2 (2-3)	Rescue
<b>Mujanovic et al. 2023<sup>(40)</sup></b>	Retrospective	459	ECASS criteria	N/A	IA Urokinase	250,000 IU	N/A	Rescue
<b>Noh et al. 2022<sup>(17)</sup></b>	Retrospective	69	ECASS criteria	SR	IA tirofiban	0.5 - 1.0 mg	N/A	Rescue
<b>Pan et al. 2022<sup>(18)</sup></b>	Retrospective	130	ECASS criteria	N/A	IA tirofiban	0.25-1.0 mg	N/A	Concurrent or Rescue
<b>Quan et al. 2019<sup>(19)</sup></b>	Retrospective	159	ECASS criteria	SR, CA	IA tirofiban	N/A	N/A	Concurrent

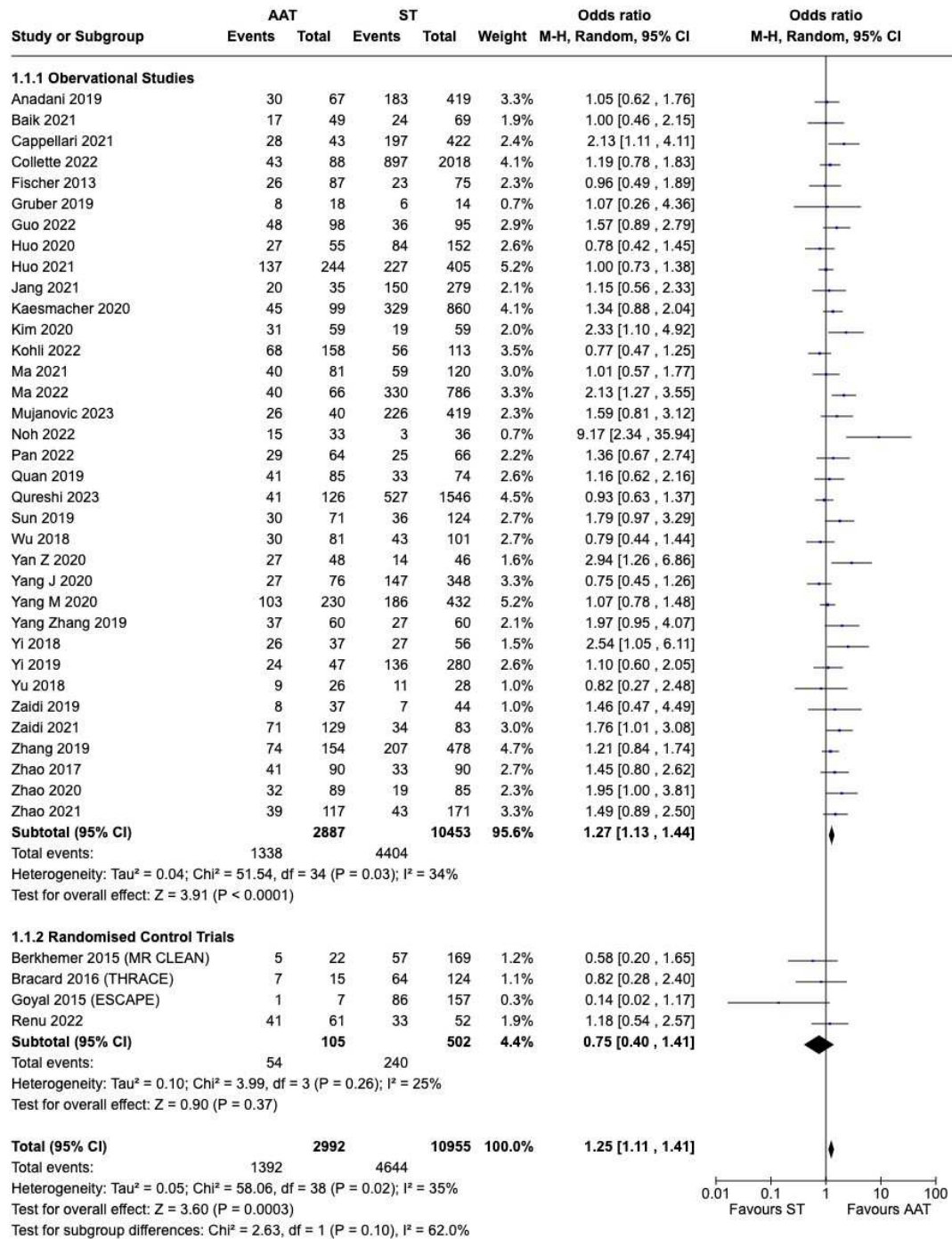
<b>Qureshi et al. 2023<sup>(41)</sup></b>	Retrospective	1672	ECASS criteria	SR, CA	IA urokinase/rtPA	N/A	N/A	Rescue
<b>Renu et al. 2022<sup>(38)</sup></b>	RCT	113	ECASS criteria	SR, CA, SR + CA	IA rtPA	0.225 mg/kg (max dose 22.5 mg)	N/A	Concurrent
<b>Singer et al. 2013<sup>(20)</sup></b>	Retrospective	733	ECASS criteria	SR	IA rtPA	N/A	N/A	Concurrent
<b>Sun et al. 2019<sup>(21)</sup></b>	Prospective	195	ECASS criteria	SR	IA tirofiban	0.25 - 0.5 mg	N/A	Rescue
<b>Wu et al. 2018<sup>(22)</sup></b>	Prospective	218	ECASS criteria	SR	IA tirofiban	50 µg/mL (max dose 10 µg/kg)	≥3 passes: AAT 17.9% ST 20.2%	Concurrent
<b>Yan et al. 2020<sup>(23)</sup></b>	Retrospective	98	Heidelberg Bleeding Classification	SR	IA tirofiban	0.4 - 0.5 mg	AAT: 2 (1-2) ST: 2 (1-2)	Rescue
<b>Yang J et al. 2020<sup>(24)</sup></b>	Prospective cohort	433	ECASS criteria	SR	IA tirofiban	10 µg/kg	≥3 passes: AAT 31.6% ST 25.3%	Rescue
<b>Yang M et al. 2020<sup>(25)</sup></b>	Prospective cohort	662	ECASS criteria	SR, CA	IA tirofiban	0.25 - 1.0 mg	≥3 passes: AAT 10.0% ST 6.1%	Rescue
<b>Yang Z et al. 2019<sup>(32)</sup></b>	Prospective	120	N/A	SR	IA tirofiban	N/A	N/A	Rescue

<b>Yi et al. 2018<sup>(27)</sup></b>	Retrospective	93	ECASS criteria	SR	IA rtPA	1.0 mg/min, max 5.0 mg	≥3 passes: AAT 46.4% ST 18.9%	Concurrent
<b>Yi et al. 2019<sup>(26)</sup></b>	Retrospective	327	N/A	SR	IA tirofiban	0.25 mg	AAT: 2.8±1.1 ST: 1.7±0.9	Concurrent
<b>Yu et al. 2018<sup>(28)</sup></b>	Retrospective	54	ECASS criteria	SR	IA tirofiban	0.2 - 0.5 mg	AAT: 2.3±1.4 ST: 2.1±1.8	Concurrent
<b>Zaidi et al. 2019<sup>(30)</sup></b>	Prospective cohort	81	ECASS criteria	SR	IA rtPA	N/A	≥3 passes: AAT 13.6% ST 5.4%	Rescue
<b>Zaidi et al. 2021<sup>(29)</sup></b>	Prospective cohort	212	N/A	SR	IA rtPA	2.0 - 12.0 mg	≥3 passes: AAT 49.4% ST 14.0%	Rescue
<b>Zhang et al. 2019<sup>(31)</sup></b>	Prospective cohort	632	Heidelberg Bleeding Classification	SR	IA tirofiban	0.25 - 0.5 mg	AAT: 2 (1-3) ST: 2 (1-3)	Rescue
<b>Zhao et al. 2017<sup>(34)</sup></b>	Retrospective	180	ECASS criteria	SR	IA tirofiban	0.25 - 0.5 mg	N/A	Concurrent or Rescue
<b>Zhao et al. 2020<sup>(33)</sup></b>	Retrospective	174	ECASS criteria	SR	IA tirofiban	5.0 µg/kg	AAT: 2 (1-2) ST: 2 (1-3)	Concurrent or Rescue

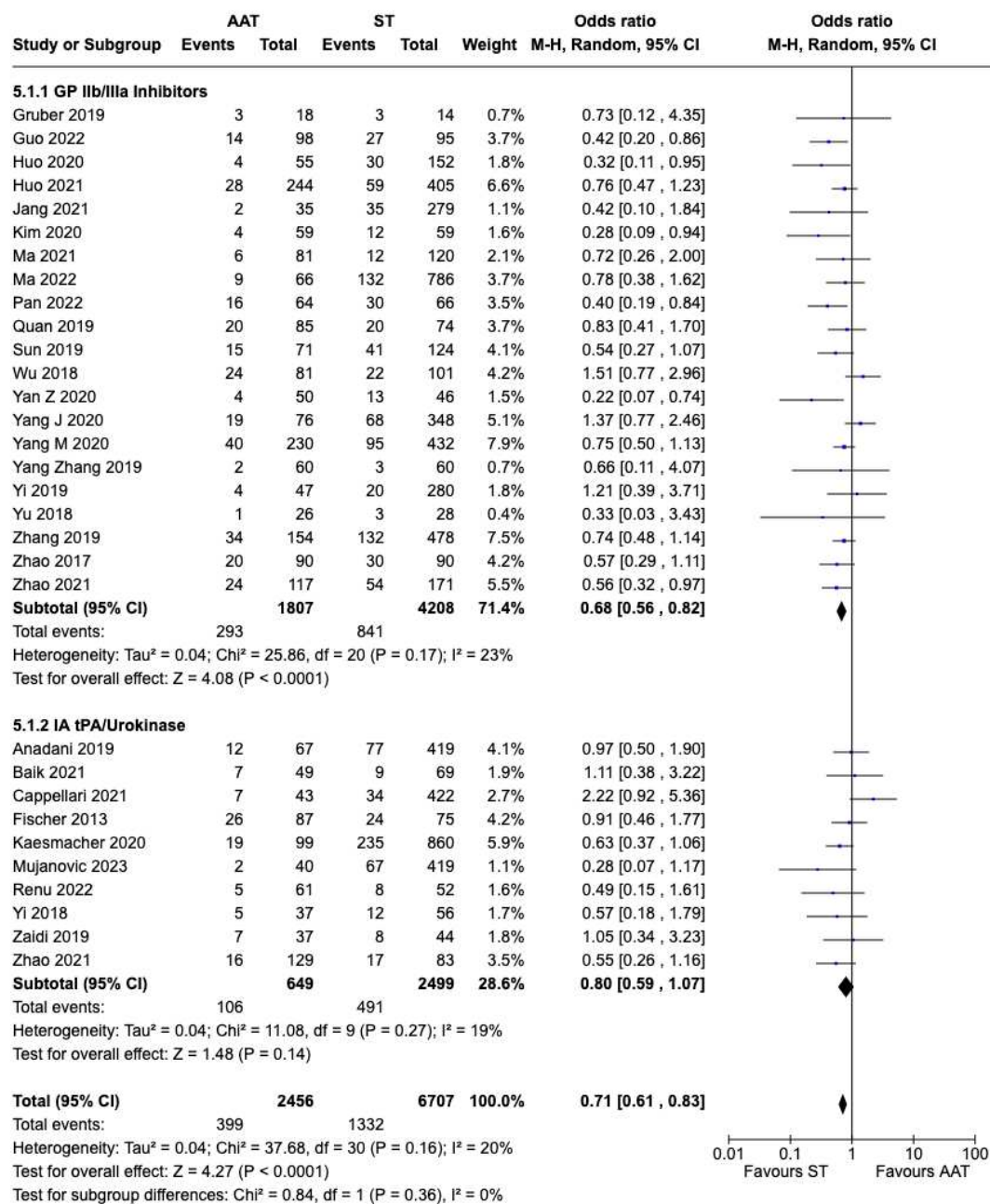
<b>Zhao et al. 2021<sup>(35)</sup></b>	Prospective	288	Heidelberg Bleeding Classification	SR	IA tirofiban	0.25 - 0.5 mg	AAT: 2 (1-3) ST: 2 (1-3)	Concurrent or Rescue
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AAT = adjunctive antithrombotic therapy, ST = standard therapy, IA = intraarterial, EVT = endovascular thrombectomy, ECASS = European Cooperative Acute Stroke Study, ICH = intracranial haemorrhage, sICH = symptomatic intracranial haemorrhage, NIHSS = National Institutes of Health Stroke Scale, RCT = randomised controlled trial, SR =stent retriever, CA =contact aspiration, rtPA =recombinant tissue-type plasminogen activator, PROACT-II = Prolyse in Acute Cerebral Thromboembolism II, N/A = not available.  
ECASS definition = intracranial haemorrhage with NIHSS increase  $\geq 4$ ; Heidelberg Bleeding Classification = Intracranial haemorrhage with any increase in NIHSS  $\geq 4$  or by  $\geq 2$  in any subcategory

**Supplementary Figure 1.** Forest plot comparing the odds ratio of functional independence at 90 days between AAT vs ST, grouped by observational studies or randomised studies.



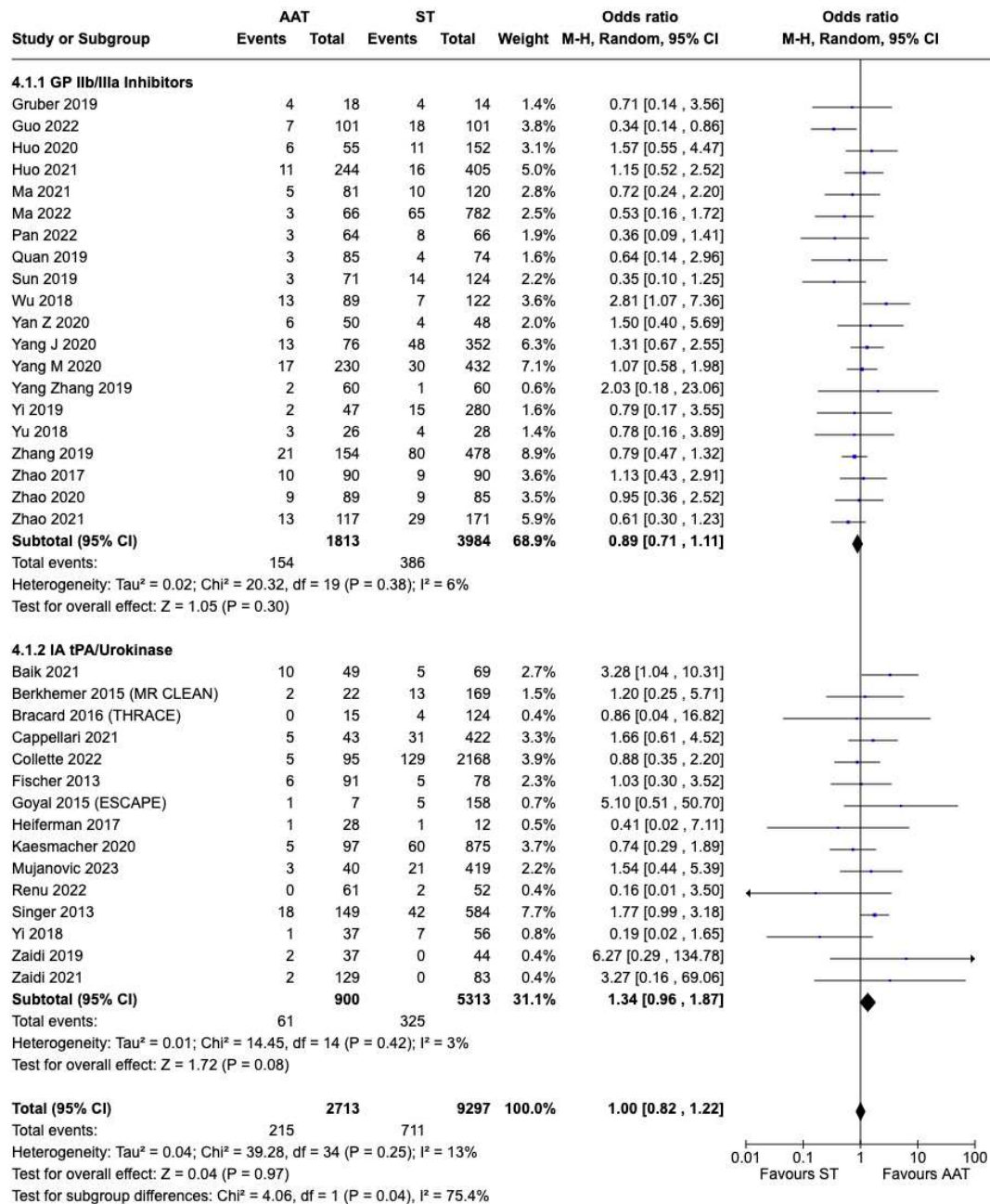
SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, vs=versus, I<sup>2</sup>=heterogeneity index.

**Supplementary Figure 2.** Forest plot comparing the odds ratio of mortality rates at 90 days between AAT vs ST groups based on the type of drug used (GPIIb/IIIa, IA-tPA or urokinase).

SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, GPIIb/IIIa =glycoprotein IIb/IIIa, IA-tPA= intraarterial tissue plasminogen activator, vs=versus, I<sup>2</sup>=heterogeneity index.

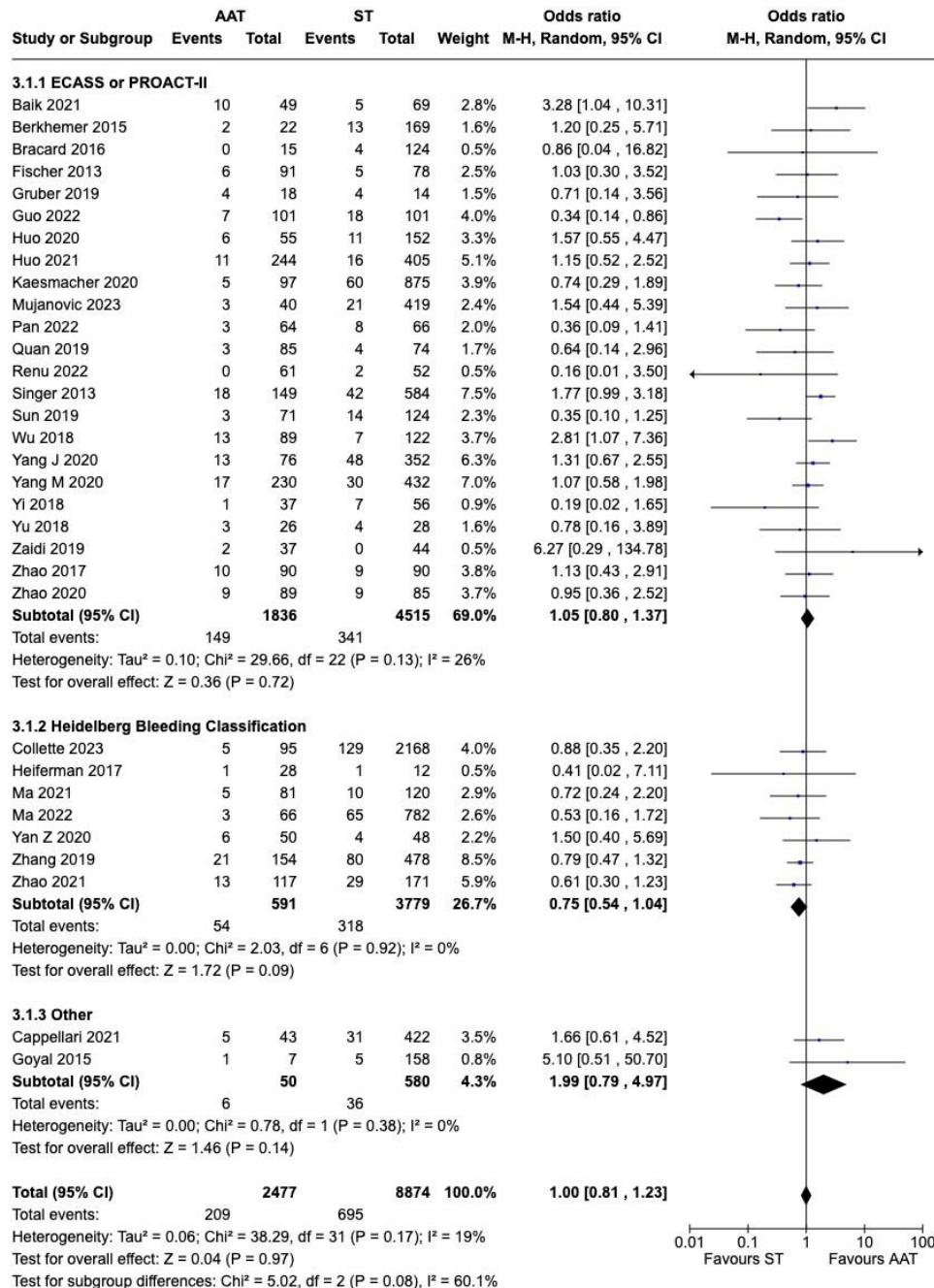


**Supplementary Figure 3.** Forest plot comparing the odds ratio of symptomatic intracranial haemorrhage rates between AAT vs ST groups based on the type of drug used (GPIIb/IIIa, IA-tPA or urokinase).

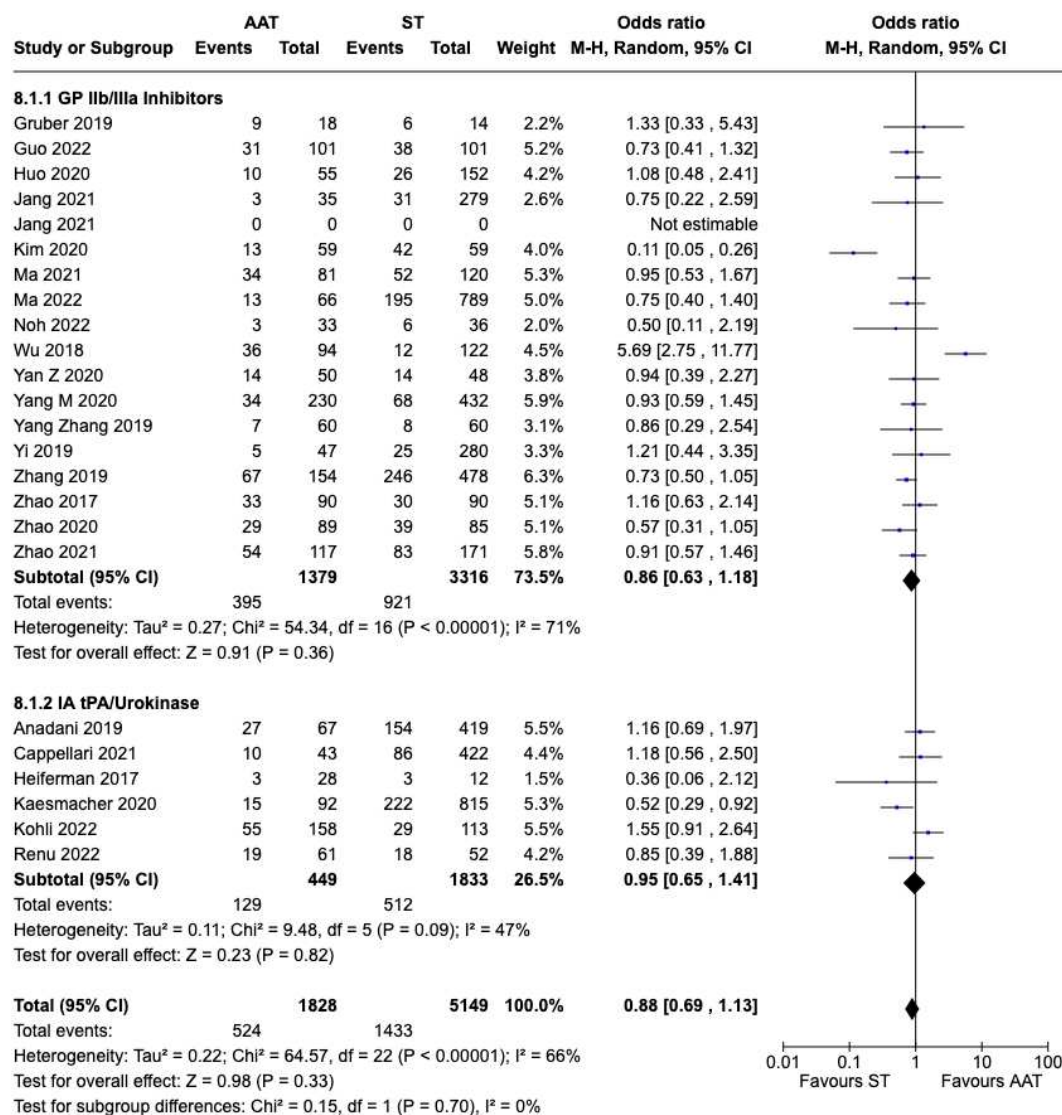


SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, GPIIb/IIIa =glycoprotein IIb/IIIa, IA-tPA= intraarterial tissue plasminogen activator, vs=versus, I<sup>2</sup>=heterogeneity index.

**Supplementary Figure 4.** Forest plot comparing the odds ratio of symptomatic intracranial hemorrhage (sICH) rates at 90 days between AAT vs ST groups based on the criteria used to define sICH (ECASS or PROACT-II, Heidelberg Bleeding Classification or other).

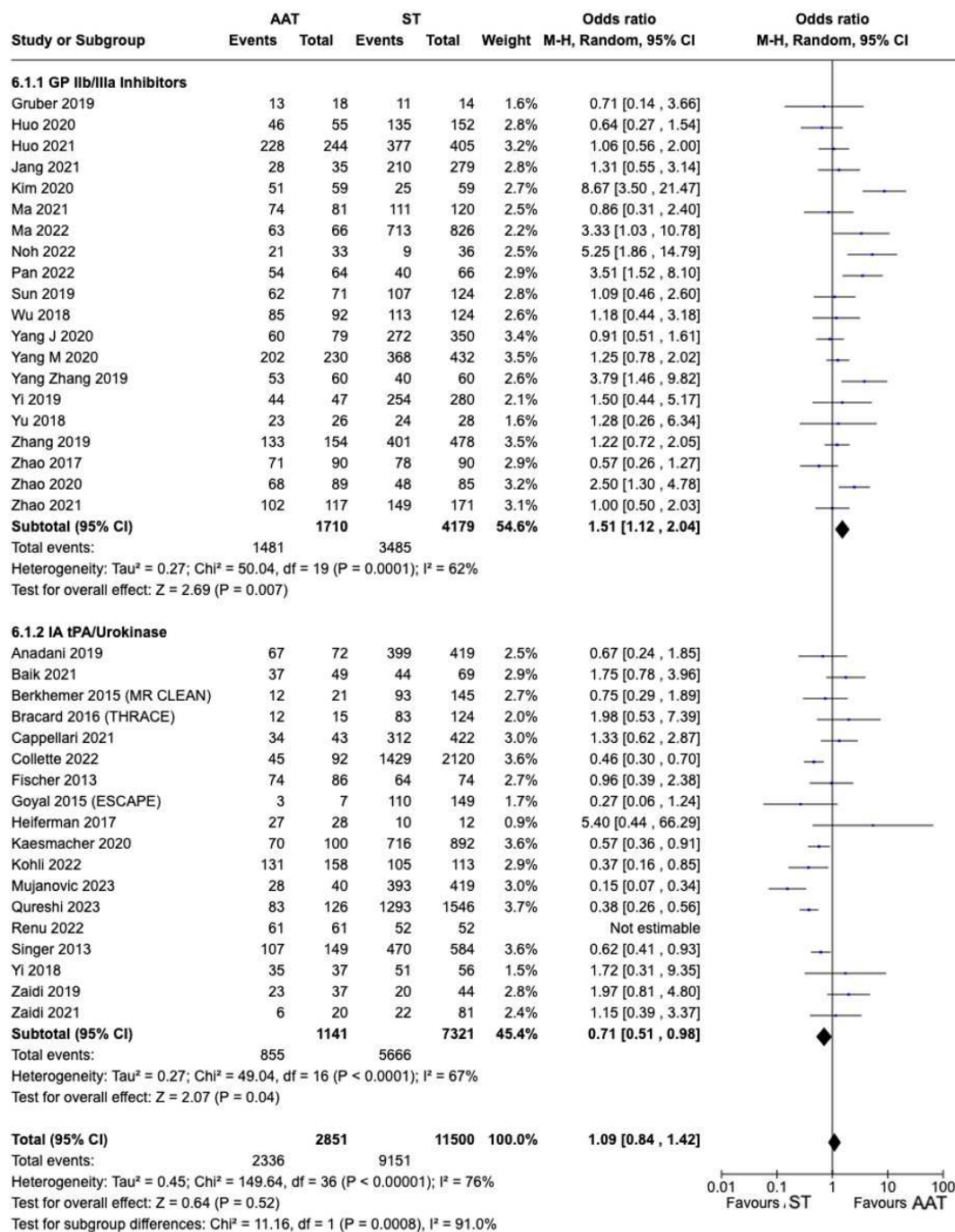


SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, ECASS = European Cooperative Acute Stroke Study, PROACT-II = Prolyse in Acute Cerebral Thromboembolism II, vs=versus, I<sup>2</sup>=heterogeneity index.

**Supplementary Figure 5.** Forest plot comparing the odds ratio of any intracranial hemorrhage rates between AAT vs ST groups based on the type of drug used (GPIIb/IIIa, IA-tPA or urokinase).

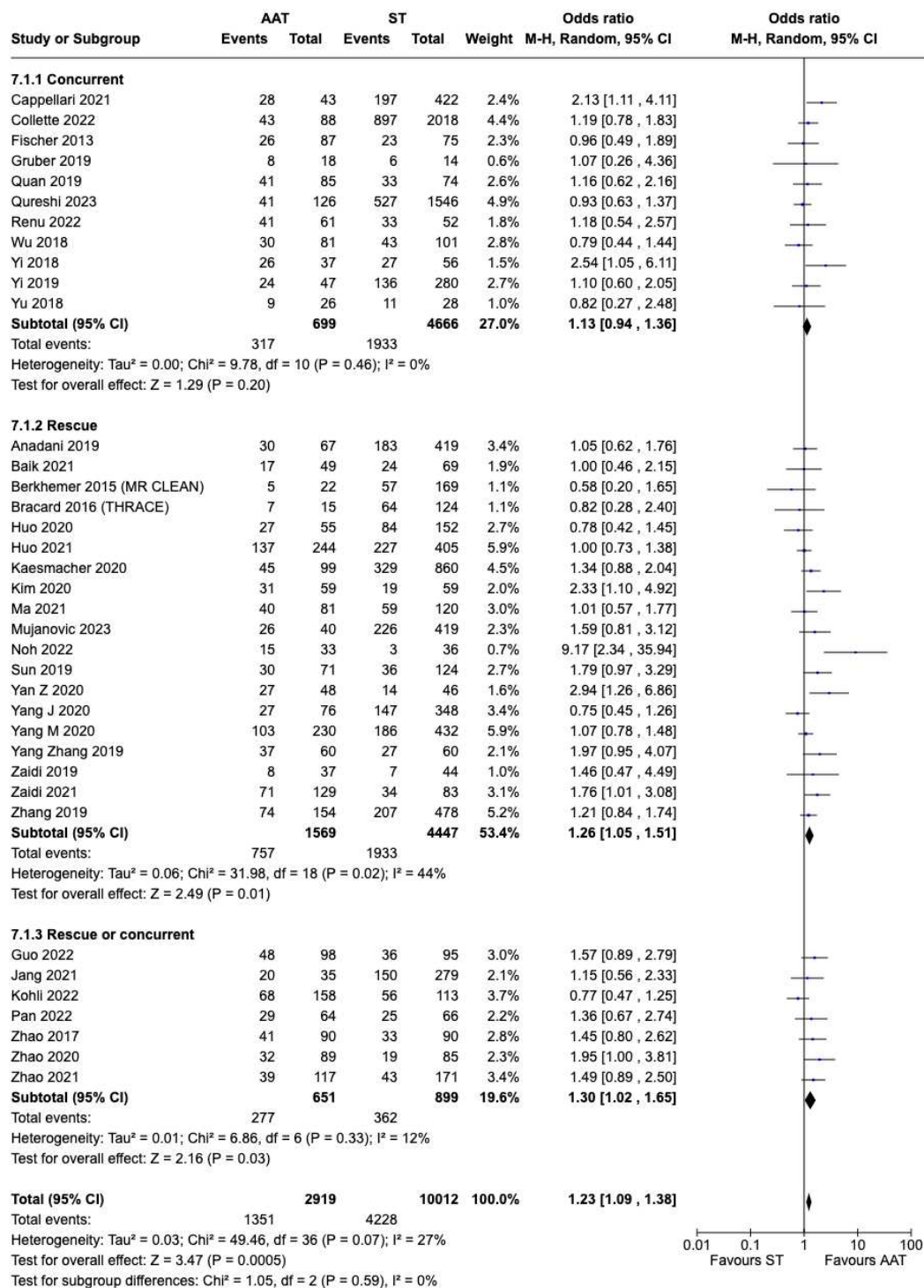
SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, GPIIb/IIIa =glycoprotein IIb/IIIa, IA-tPA= intraarterial tissue plasminogen activator, vs=versus, I<sup>2</sup>=heterogeneity index.

**Supplementary Figure 6.** Forest plot comparing the odds ratio of successful recanalisation (TICI  $\geq 2b$ ) rates between AAT vs ST groups based on the type of drug used (GPIIb/IIIa, IA-tPA or urokinase).



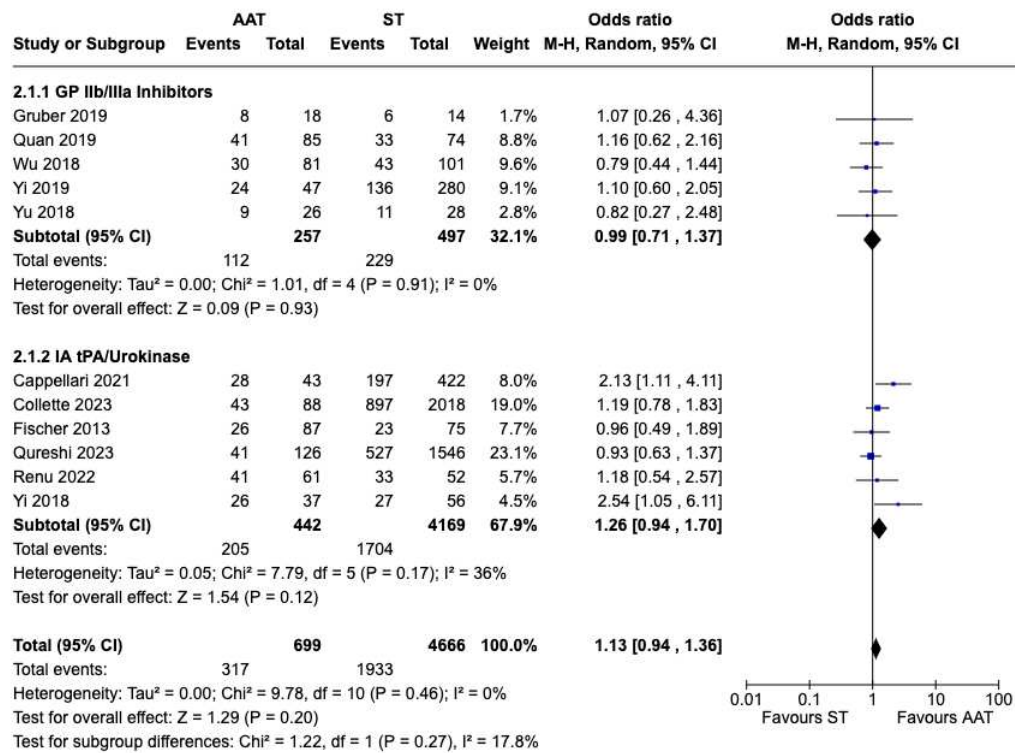
SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, GPIIb/IIIa =glycoprotein IIb/IIIa, IA-tPA= intraarterial tissue plasminogen activator, TICI=thrombolysis in cerebral infarction, vs=versus, I<sup>2</sup>=heterogeneity index.

**Supplementary Figure 7.** Forest plot comparing the odds ratio of functional independence at 90 days between AAT vs ST groups based on the treatment indication (rescue, concurrent, rescue or concurrent).



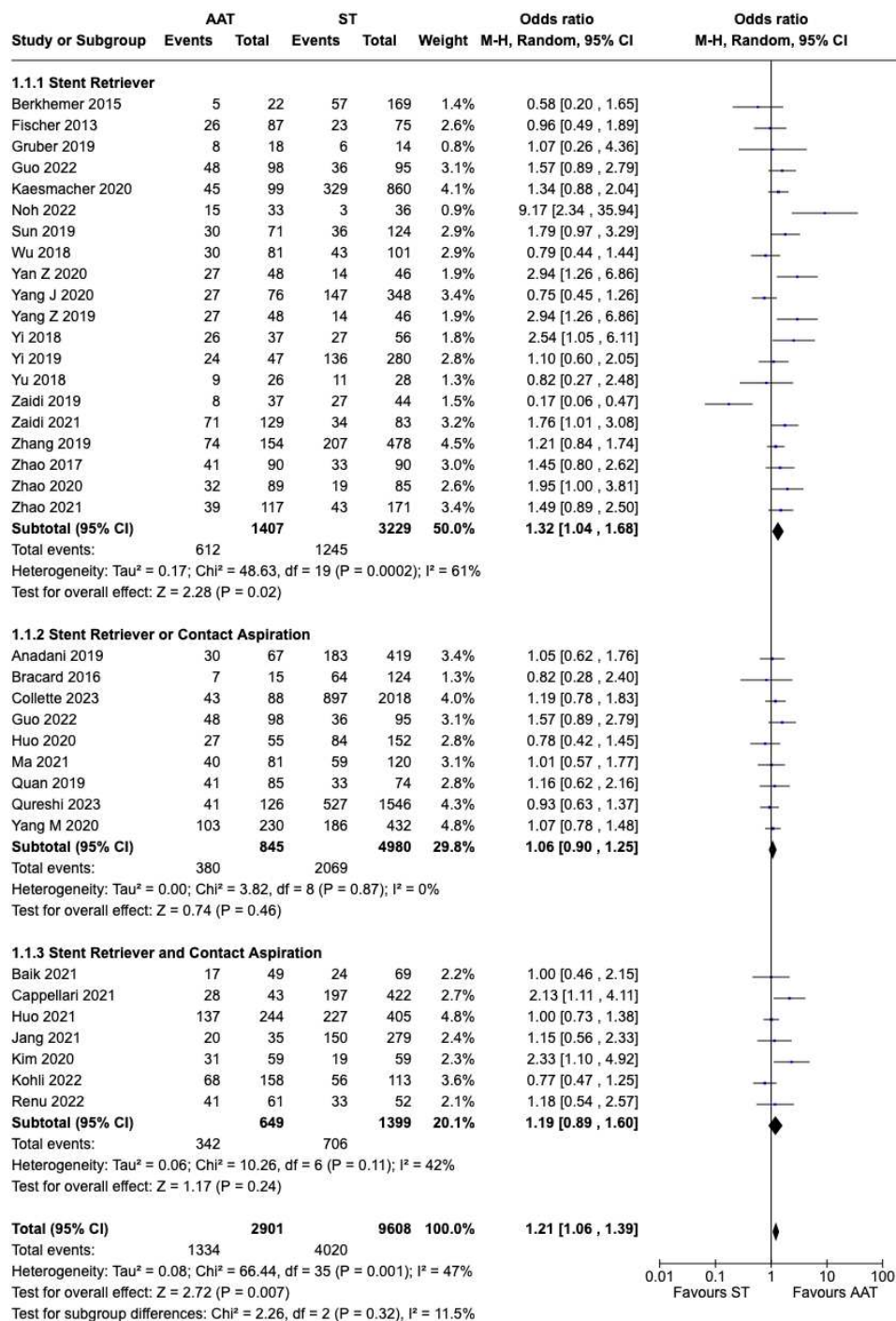
SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, vs = versus, I<sup>2</sup> = heterogeneity index.

**Supplementary Figure 8.** Forest plot comparing the odds ratio of functional independence at 90 days between AAT vs ST groups based on the type of drug used as concurrent treatment (GPIIb/IIIa or IA-tPA).



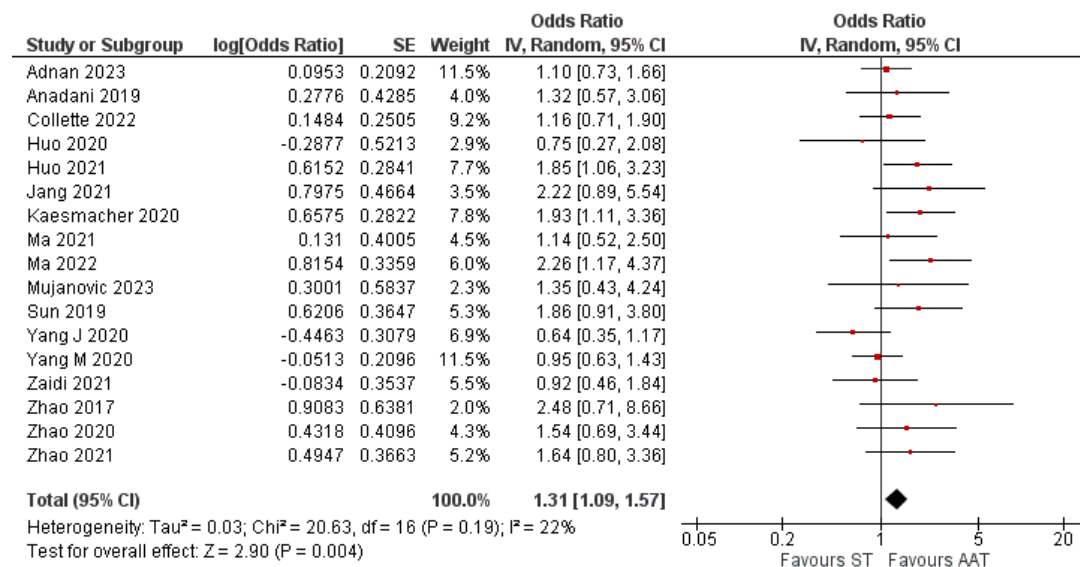
SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, GPIIb/IIIa=glycoprotein IIb/IIIa, IA-tPA= intraarterial tissue plasminogen activator, vs=versus, I<sup>2</sup>=heterogeneity index.

**Supplementary Figure 9.** Forest plot comparing the odds ratio of functional independence at 90 days between AAT vs ST groups based on the type of endovascular thrombectomy technique used (stent retriever, contact aspiration).



SD=standard deviation, CI=confidence interval, ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, vs=versus, I<sup>2</sup>=heterogeneity index.

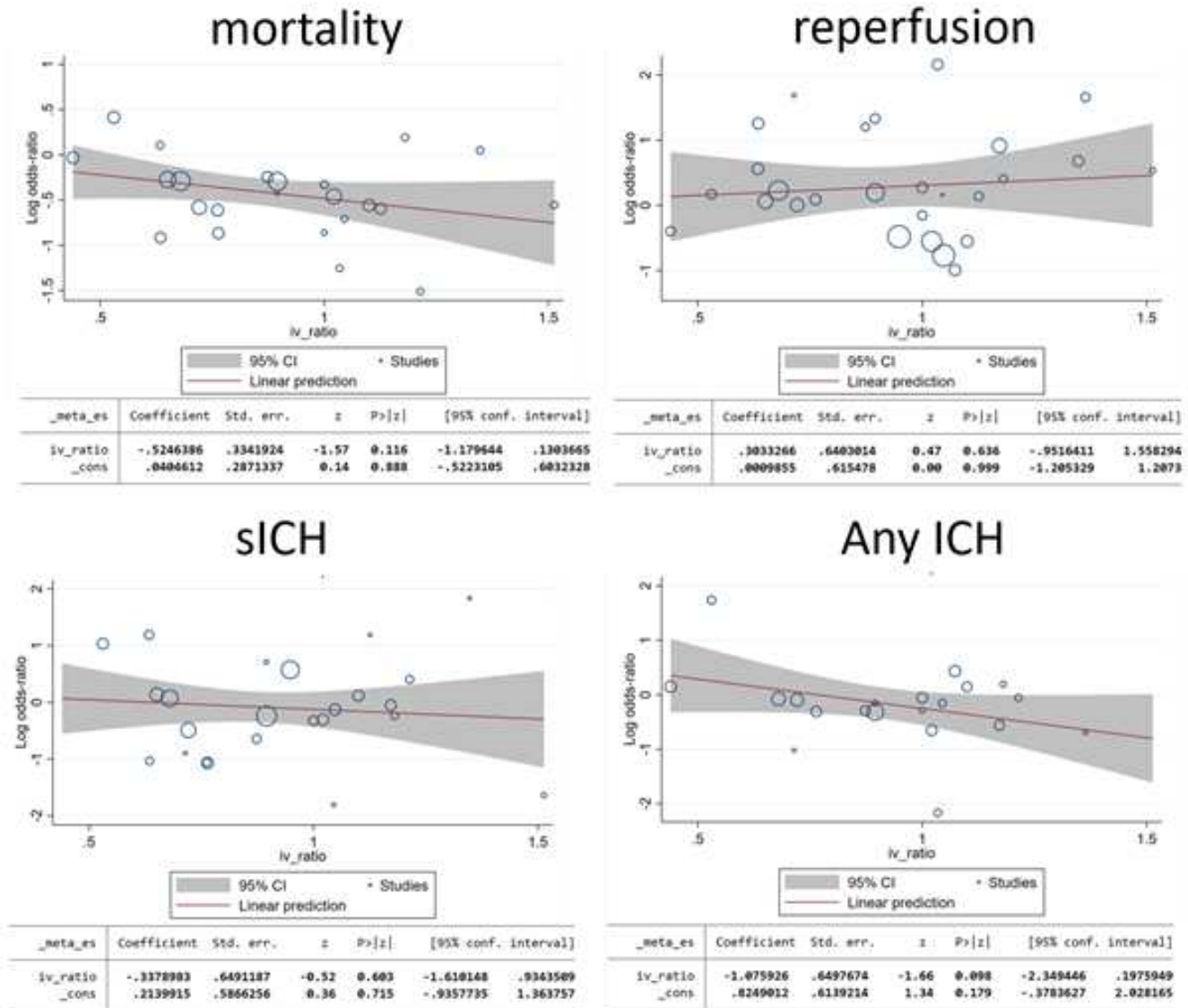
**Supplementary Figure 10.** Forest plot of the adjusted odds ratios of functional independence at 90 days of the observational studies comparing AAT and ST.



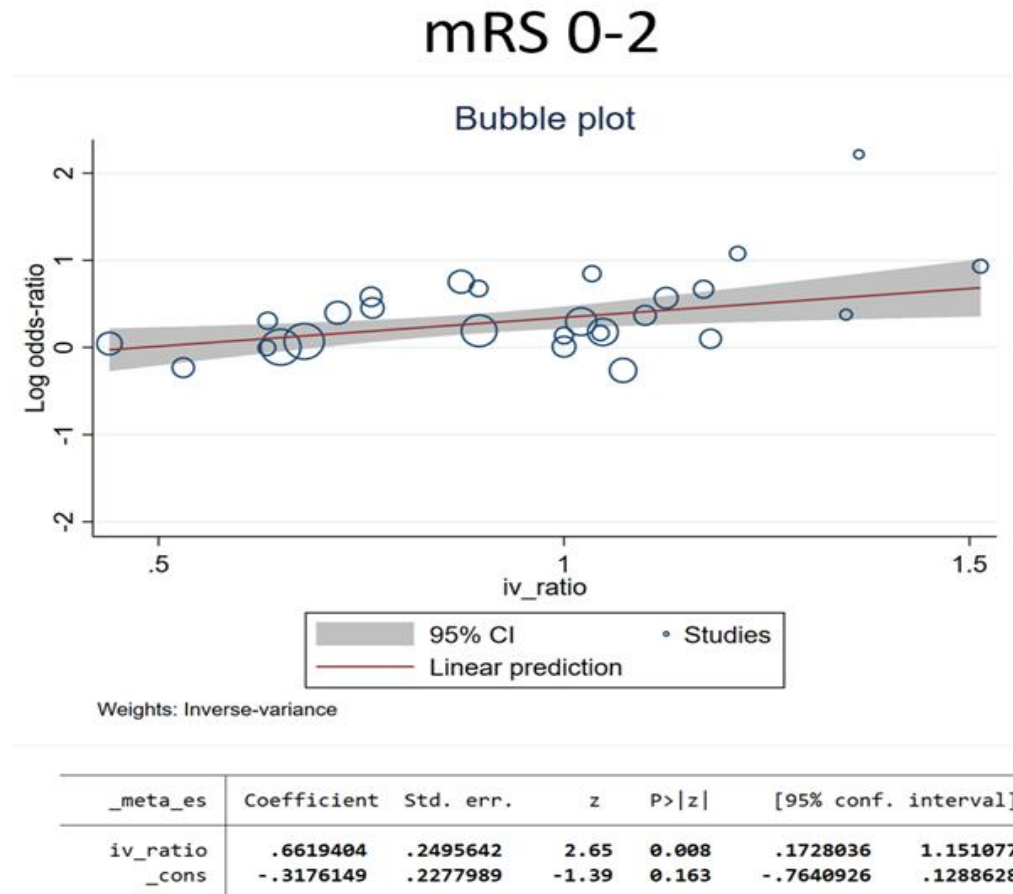
ST = standard therapy, AAT = adjunctive anti-thrombotic therapy, vs=versus, I<sup>2</sup>=heterogeneity index, SE=standard error, CI=confidence interval, I<sup>2</sup>=heterogeneity index.



**Supplementary Figure 11.** Bubble plot and meta-regression of ratio of proportion of patients in adjunctive intraarterial antithrombotic therapy (AAT) arm to standard therapy (ST) arm who received intravenous thrombolysis on mortality, reperfusion, symptomatic intracranial haemorrhage (sICH) and any intracranial haemorrhage (ICH).



**Supplementary Figure 12.** Bubble plot and meta-regression of ratio of proportion of patients in adjunctive intra-arterial antithrombotic therapy (AAT) arm to standard therapy (ST) arm who received intravenous thrombolysis (IVT) on functional independence (modified Rankin Scale 0-2) at 90 days.

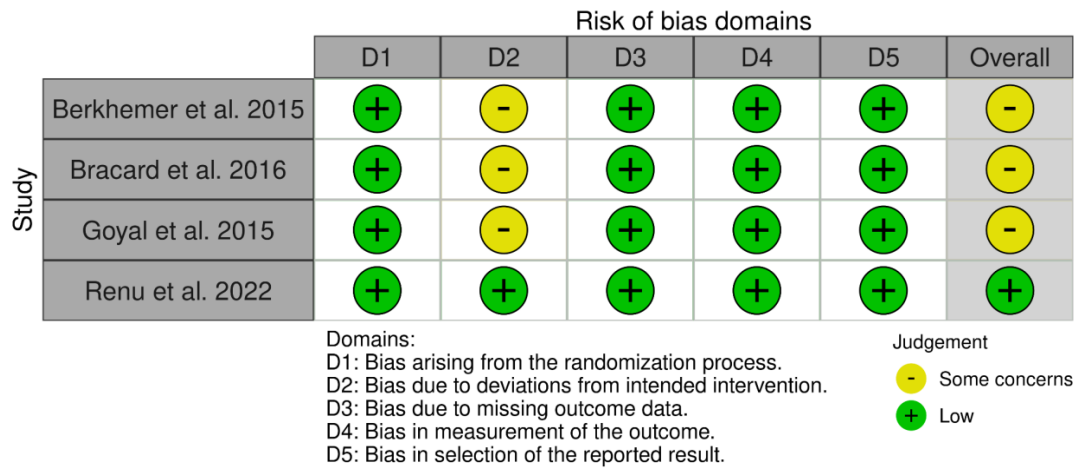
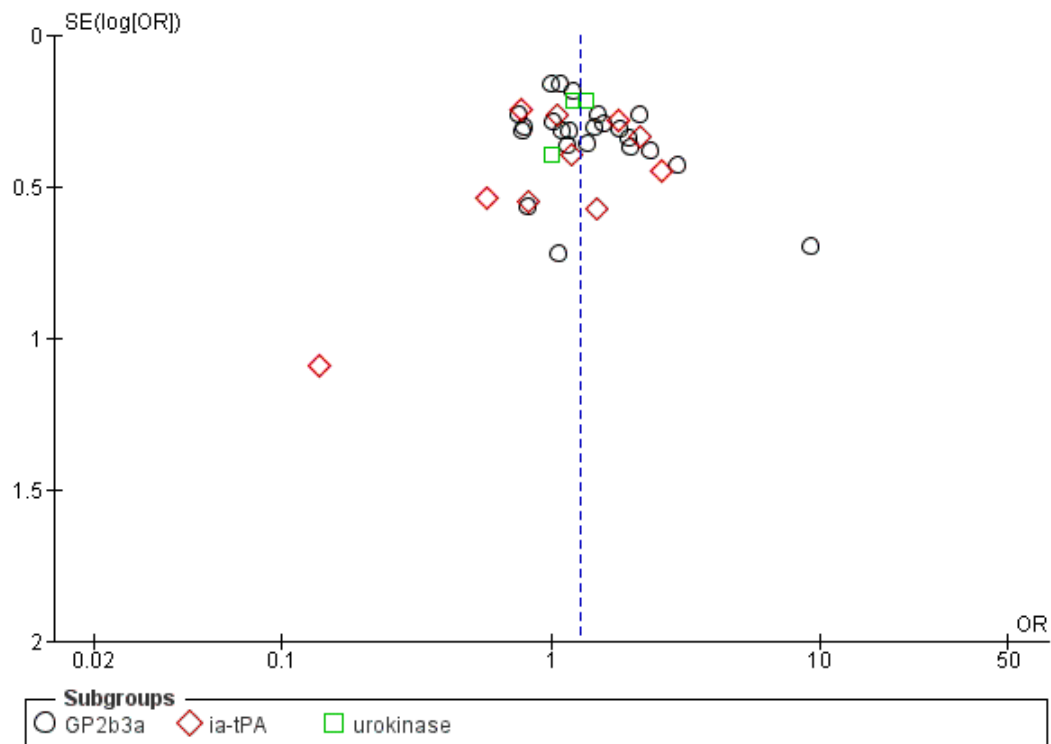


**Supplementary Figure 13.** Risk Of Bias In Non-randomised Studies of Interventions (ROBINS-I) assessment.

Study	Risk of bias domains							Overall
	D1	D2	D3	D4	D5	D6	D7	
Anadani et al. 2019	-	+	-	+	+	-	+	+
Baik et al. 2021	-	-	-	+	+	-	+	-
Cappellari et al. 2021	-	+	-	+	+	-	-	-
Collette et al. 2022	-	+	-	-	+	-	-	+
Fischer et al. 2013	-	+	-	-	-	-	-	+
Gruber et al. 2019	-	-	-	+	+	-	-	-
Guo et al. 2022	-	+	-	+	+	-	+	-
Heiferman et al. 2017	-	-	-	+	+	-	-	-
Huo et al. 2020	-	-	-	-	+	-	-	-
Huo et al. 2021	-	-	+	+	+	-	-	-
Jang et al. 2021	-	-	+	+	+	-	-	-
Kaesmacher et al. 2020	-	-	-	+	+	-	-	-
Kim et al. 2020	-	-	-	-	+	-	-	-
Kohli et al. 2022	-	-	-	+	+	-	-	-
Ma et al. 2021	-	-	-	+	+	-	-	-
Ma et al. 2022	-	-	-	-	+	+	-	+
Mujanovic et al. 2023	-	-	+	+	+	-	+	-
Noh et al. 2022	-	-	-	+	+	-	-	-
Pan et al. 2022	-	-	-	+	+	-	-	-
Quan et al. 2019	-	-	-	+	+	-	-	-
Qureshi et al. 2023	-	+	-	+	+	-	+	-
Singer et al. 2013	-	-	-	+	+	-	-	-
Sun et al. 2019	-	-	-	+	+	-	-	-
Wu et al. 2018	-	-	-	+	+	-	-	-
Yan et al. 2022	-	-	-	+	+	-	-	-
Yang J et al. 2020	-	-	-	+	+	-	-	-
Yang M et al. 2020	-	+	-	+	-	-	-	-
Yang Zhang et al. 2019	-	-	-	+	+	-	-	-
Yi et al. 2018	+	-	-	+	+	-	-	+
Yi et al. 2019	-	+	-	+	-	-	-	-
Yu et al. 2018	-	+	-	+	+	-	-	+
Zaidi et al. 2019	-	-	-	+	+	+	-	-
Zaidi et al. 2021	-	-	+	+	+	-	-	-
Zhang et al. 2019	-	+	-	+	+	-	-	-
Zhao et al. 2017	-	+	-	+	-	-	-	+
Zhao et al. 2020	-	+	+	+	-	-	-	+
Zhao et al. 2021	-	+	-	+	-	-	+	-

Domains:  
D1: Bias due to confounding.  
D2: Bias due to selection of participants.  
D3: Bias in classification of interventions.  
D4: Bias due to deviations from intended interventions.  
D5: Bias due to missing data.  
D6: Bias in measurement of outcomes.  
D7: Bias in selection of the reported result.

Judgement  
+ Serious  
- Moderate  
+ Low

**Supplementary Figure 14.** Risk-of-Bias (RoB 2) assessment of randomised trials.**Supplementary Figure 15.** Funnel plot for good clinical outcome in intraarterial adjunctive therapy (standard therapy vs adjunctive intraarterial antithrombotic therapy) by the type of the drug used; GP2b3a=glycoprotein IIb/IIIa, IA-tPA= intraarterial tissue plasminogen activator.

## **REFERENCES**

1. Anadani M, Ajinkya S, Alawieh A, Vargas J, Chatterjee A, Turk A, et al. Intra-Arterial Tissue Plasminogen Activator Is a Safe Rescue Therapy with Mechanical Thrombectomy. *World Neurosurg.* 2019;123:e604-e8.
2. Baik SH, Jung C, Kim JY, Shin DW, Kim BJ, Kang J, et al. Local Intra-arterial Thrombolysis during Mechanical Thrombectomy for Refractory Large-Vessel Occlusion: Adjunctive Chemical Enhancer of Thrombectomy. *AJNR Am J Neuroradiol.* 2021;42(11):1986-92.
3. Berkhemer OA, Fransen PS, Beumer D, van den Berg LA, Lingsma HF, Yoo AJ, et al. A randomized trial of intraarterial treatment for acute ischemic stroke. *N Engl J Med.* 2015;372(1):11-20.
4. Bracard S, Ducrocq X, Mas JL, Soudant M, Oppenheim C, Moulin T, et al. Mechanical thrombectomy after intravenous alteplase versus alteplase alone after stroke (THRACE): a randomised controlled trial. *Lancet Neurol.* 2016;15(11):1138-47.
5. Cappellari M, Saia V, Pracucci G, Tassi R, Sallustio F, Nencini P, et al. Different endovascular procedures for stroke with isolated M2-segment MCA occlusion: a real-world experience. *J Thromb Thrombolysis.* 2021;51(4):1157-62.
6. Goyal M, Demchuk AM, Menon BK, Eesa M, Rempel JL, Thornton J, et al. Randomized assessment of rapid endovascular treatment of ischemic stroke. *N Engl J Med.* 2015;372(11):1019-30.
7. Gruber P, Hlavica M, Berberat J, Victor Ineichen B, Diepers M, Nedeltchev K, et al. Acute administration of tirofiban versus aspirin in emergent carotid artery stenting. *Interv Neuroradiol.* 2019;25(2):219-24.
8. Guo W, Xu J, Ma L, Ma J, Li S, Ren C, et al. Safety and efficacy of different tirofiban administration routes on acute ischemic stroke patients with successful recanalization: A propensity score matching analysis. *CNS Neurosci Ther.* 2022;28(12):1993-2000.
9. Heiferman DM, Li DD, Pecoraro NC, Smolenski AM, Tsimpas A, Ashley WW, Jr. Intra-Arterial Alteplase Thrombolysis during Mechanical Thrombectomy for Acute Ischemic Stroke. *J Stroke Cerebrovasc Dis.* 2017;26(12):3004-8.
10. Huo X, Raynald, Wang A, Mo D, Gao F, Ma N, et al. Safety and Efficacy of Tirofiban for Acute Ischemic Stroke Patients With Large Artery Atherosclerosis Stroke Etiology Undergoing Endovascular Therapy. *Front Neurol.* 2021;12:630301.
11. Huo X, Yang M, Ma N, Gao F, Mo D, Li X, et al. Safety and Efficacy of Tirofiban During Mechanical Thrombectomy for Stroke Patients with Preceding Intravenous Thrombolysis. *Clin Interv Aging.* 2020;15:1241-8.
12. Jang SH, Sohn SI, Park H, Lee SJ, Kim YW, Hong JM, et al. The Safety of Intra-arterial Tirofiban during Endovascular Therapy after Intravenous Thrombolysis. *AJNR Am J Neuroradiol.* 2021;42(9):1633-7.
13. Kaesmacher J, Bellwald S, Dobrocky T, Meinel TR, Piechowiak EI, Goeldlin M, et al. Safety and Efficacy of Intra-arterial Urokinase After Failed, Unsuccessful, or Incomplete Mechanical Thrombectomy in Anterior Circulation Large-Vessel Occlusion Stroke. *JAMA Neurol.* 2020;77(3):318-26.
14. Kim YW, Sohn SI, Yoo J, Hong JH, Kim CH, Kang DH, et al. Local tirofiban infusion for remnant stenosis in large vessel occlusion: tirofiban ASSIST study. *BMC Neurol.* 2020;20(1):284.

15. Kohli GS, Whyte R, Schartz D, Rahmani R, Ellens NR, Susa ST, et al. Approaches to and outcomes of intra-arterial tPA in embolectomy for large vessel occlusion. *J Stroke Cerebrovasc Dis.* 2022;31(10):106717.
16. Ma G, Li S, Jia B, Mo D, Ma N, Gao F, et al. Safety and Efficacy of Low-Dose Tirofiban Combined With Intravenous Thrombolysis and Mechanical Thrombectomy in Acute Ischemic Stroke: A Matched-Control Analysis From a Nationwide Registry. *Front Neurol.* 2021;12:666919.
17. Noh YH, Lee JY, Yoon SM, Ha YJ, Chung J, Ko JH, et al. Efficacy and safety of tirofiban injection with intracranial stenting in early reocclusion due to intracranial atherosclerosis. *Interdisciplinary Neurosurgery.* 2022;27:101425.
18. Pan X, Xu M, Fei Y, Lin S, Lin Y, Zou J, et al. Influence of tirofiban on stroke outcome after mechanical thrombectomy in acute vertebrobasilar artery occlusion. *BMC neurology.* 2022;22(1):460.
19. Quan T, Hou H, Xue W, Yu G, Ma H, Sun J, et al. Endovascular treatment of acute intracranial vertebrobasilar artery occlusion: a multicenter retrospective observational study. *Neuroradiology.* 2019;61:1477-84.
20. Singer OC, Haring H-P, Trenkler J, Nolte CH, Bohner G, Neumann-Haefelin T, et al. Periprocedural aspects in mechanical recanalization for acute stroke: data from the ENDOSTROKE registry. *Neuroradiology.* 2013;55:1143-51.
21. Sun C, Li X, Zhao Z, Chen X, Huang C, Li X, et al. Safety and efficacy of tirofiban combined with mechanical thrombectomy depend on ischemic stroke etiology. *Frontiers in neurology.* 2019;10:1100.
22. Wu Y, Yin C, Yang J, Jiang L, Parsons MW, Lin L. Endovascular thrombectomy: tirofiban increases bleeding risk in acute stroke patients. *Stroke.* 2018;49(11):2783-5.
23. Yan Z, Shi Z, Wang Y, Zhang C, Cao J, Ding C, et al. Efficacy and safety of low-dose tirofiban for acute intracranial atherosclerotic stenosis related occlusion with residual stenosis after endovascular treatment. *Journal of Stroke and Cerebrovascular Diseases.* 2020;29(4):104619.
24. Yang J, Wu Y, Gao X, Bivard A, Levi CR, Parsons MW, et al. Intraarterial versus intravenous tirofiban as an adjunct to endovascular thrombectomy for acute ischemic stroke. *Stroke.* 2020;51(10):2925-33.
25. Yang M, Huo X, Gao F, Wang A, Ma N, Shi H, et al. Low-dose rescue tirofiban in mechanical thrombectomy for acute cerebral large-artery occlusion. *European journal of neurology.* 2020;27(6):1056-61.
26. Yi HJ, Sung JH, Lee DH. Safety and efficacy of intra-arterial tirofiban injection during mechanical thrombectomy for large artery occlusion. *Current Neurovascular Research.* 2019;16(5):416-24.
27. Yi T-Y, Chen W-H, Wu Y-M, Zhang M-F, Lin D-L, Lin X-H. Adjuvant intra-arterial rt-PA injection at the initially deployed solitaire stent enhances the efficacy of mechanical thrombectomy in acute ischemic stroke. *Journal of the Neurological Sciences.* 2018;386:69-73.
28. Yu T, Lin Y, Jin A, Zhang P, Zhou X, Fang M, et al. Safety and efficiency of low dose intra-arterial tirofiban in mechanical thrombectomy during acute ischemic stroke. *Current Neurovascular Research.* 2018;15(2):145-50.
29. Zaidi S, Castonguay A, Zaidat O, Mueller-Kronast N, Liebeskind D, Salahuddin H, et al. Intra-arterial thrombolysis after unsuccessful mechanical thrombectomy in the STRATIS registry. *American Journal of Neuroradiology.* 2021;42(4):708-12.

30. Zaidi SF, Castonguay AC, Jumaa MA, Malisch TW, Linfante I, Marden FA, et al. Intraarterial thrombolysis as rescue therapy for large vessel occlusions: analysis from the North American solitaire stent-retriever acute stroke registry. *Stroke*. 2019;50(4):1003-6.
31. Zhang S, Hao Y, Tian X, Zi W, Wang H, Yang D, et al. Safety of intra-arterial tirofiban administration in ischemic stroke patients after unsuccessful mechanical thrombectomy. *Journal of Vascular and Interventional Radiology*. 2019;30(2):141-7. e1.
32. Zhang Y, Zhang Q-Q, Fu C, Wang L, Zhang G-Q, Cao P-W, et al. Clinical efficacy of tirofiban combined with a Solitaire stent in treating acute ischemic stroke. *Brazilian Journal of Medical and Biological Research*. 2019;52.
33. Zhao L, Jian Y, Li T, Wang H, Lei Z, Sun M, et al. The safety and efficiency of tirofiban in acute ischemic stroke patients treated with mechanical thrombectomy: a multicenter retrospective cohort study. *Biochemistry Research International*. 2020;2020.
34. Zhao W, Che R, Shang S, Wu C, Li C, Wu L, et al. Low-dose tirofiban improves functional outcome in acute ischemic stroke patients treated with endovascular thrombectomy. *Stroke*. 2017;48(12):3289-94.
35. Zhao W, Xu J, Li S, Liu G, Wu L, Li C, et al. Low-dose tirofiban is associated with reduced in-hospital mortality in cardioembolic stroke patients treated with endovascular thrombectomy. *Journal of the Neurological Sciences*. 2021;427:117539.
36. Collette SL, Bokkers RPH, Mazuri A, Lycklama ANGJ, van Oostenbrugge RJ, LeCouffe NE, et al. Intra-arterial thrombolytics during endovascular thrombectomy for acute ischaemic stroke in the MR CLEAN Registry. *Stroke Vasc Neurol*. 2023;8(1):17-25.
37. Ma G, Sun X, Cheng H, Burgin WS, Luo W, Jia W, et al. Combined Approach to Eptifibatide and Thrombectomy in Acute Ischemic Stroke Because of Large Vessel Occlusion: A Matched-Control Analysis. *Stroke*. 2022;53(5):1580-8.
38. Renu A, Millan M, San Roman L, Blasco J, Marti-Fabregas J, Terceno M, et al. Effect of Intra-arterial Alteplase vs Placebo Following Successful Thrombectomy on Functional Outcomes in Patients With Large Vessel Occlusion Acute Ischemic Stroke: The CHOICE Randomized Clinical Trial. *JAMA*. 2022;327(9):826-35.
39. Fischer U, Mono ML, Schroth G, Jung S, Mordasini P, El-Koussy M, et al. Endovascular therapy in 201 patients with acute symptomatic occlusion of the internal carotid artery. *Eur J Neurol*. 2013;20(7):1017-24, e87.
40. Mujanovic A, Kurmann CC, Serrallach BL, Dobrocky T, Meinel TR, Windecker D, et al. Intra-Arterial Thrombolysis is Associated with Delayed Reperfusion of Remaining Vessel Occlusions following Incomplete Thrombectomy. *AJNR Am J Neuroradiol*. 2023;44(9):1050-6.
41. Qureshi AI, Lodhi A, Ma X, Tao C, Li R, Xu P, et al. Intraarterial thrombolytics as an adjunct to mechanical thrombectomy in patients with basilar artery occlusion. *J Neuroimaging*. 2023;33(3):415-21.