Supplementary Online Content

Katsanos AH, Psychogios K, Turc G, et al. Off-label use of tenecteplase for the treatment of acute ischemic stroke: a systematic review and meta-analysis. *JAMA Netw Open*. 2022;5(3):e224506. doi:10.1001/jamanetworkopen.2022.4506

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1: Definition of successful recanalization in patients with confirmed intracranial vessel occlusion across included studies.

Study name	Definition
Alemseged et al,[1] 2021	mTICI 2b–3 on initial angiogram (before endovascular therapy was performed) or reperfusion ≥50% of the involved territory on multimodal imaging
Parsons et al,[2] 2009	24-hour CTA or MRA demonstrating partial flow or normal flow using adapted Thrombolysis in Myocardial Infarction (TIMI) criteria (TIMI≥2)
Psychogios et al,[3] 2021	24-hour CTA or MRA or Transcranial Doppler demonstrating normal flow
Seners et al,[4] 2019	mTICI 2b-3 on pre-mechanical thrombectomy first angiographic run or non-invasive vascular imaging
Mahawish et al,[5] 2021	N/A
Warrach et al,[6] 2021	N/A

mTICI: modified Thrombolysis in Cerebral Infarction; CTA: computed tomography angiography; MRA: magnetic resonance angiography; TIMI: Thrombolysis in Myocardial Infarction; N/A: not available

eTable 2: Definition of early neurological improvement at 24h across included studies.

Study name	Definition
Alemseged et al,[1] 2021	N/A
Parsons et al,[2] 2009	Reduction in the baseline NIHSS score of at least 8 points
Psychogios et al,[3] 2021	Reduction in the baseline NIHSS score of at least 8 points
Seners et al,[4] 2019	N/A
Mahawish et al,[5] 2021	N/A
Warrach et al,[6] 2021	N/A

NIHSS: National Institutes of Health Stroke Scale; N/A: not available

eTable 3: Adjustment for potential confounders across included studies

Study name	Adjusted variables	Method for adjustment
Alemseged et al,[1] 2021	Age, NIHSS score, needle-to-arterial puncture time, cardioembolic etiology	Multivariable regression (selection process for confounders not described)
Parsons et al,[2] 2009	Age, NIHSS, serum glucose, infarct core volume, penumbra volume, percent penumbra, TIMI grade 0 (baseline)	Multivariable regression (confounders selected based on p-values from univariable analyses)
Psychogios et al,[3] 2021	Age, baseline NIHSS score, presence of proximal intracranial occlusion	Multivariable regression (a priori defined confounders)
Seners et al,[4] 2019	Age, NIHSS, onset-to-IVT time, occlusion site, thrombus length	Propensity score matching (a priori defined confounders)
Mahawish et al,[5] 2021	Age, sex, pre-morbid mRS, onset-to-door-time, NIHSS, thrombectomy, door-to-needle time	Multivariable regression (a priori defined confounders)
Warrach et al,[6] 2021	N/A	N/A

NIHSS: National Institutes of Health Stroke Scale; IVT: intravenous thrombolysis; mRS: modified Rankin Scale; TIMI: Thrombolysis in Myocardial Infarction, N/A: not available

eTable 4: Quality assessment of included studies with the Newcastle–Ottawa Scale.

Study name	Selection	Comparability	Outcome	Overall score
Alemseged et al,[1] 2021	****	**	***	9/9
Parsons et al,[2] 2009	***	*	***	7/9
Psychogios et al,[3] 2021	***	**	**	7/9
Seners et al,[4] 2019	***	**	**	7/9
Mahawish et al,[5] 2021	***	**	**	7/9
Warrach et al,[6] 2021	N/A	N/A	N/A	N/A
Overall Score	16/20	9/10	12/15	37/45

N/A: not available

eReferences:

1. Alemseged F, Ng FC, Williams C, et al. Tenecteplase vs Alteplase Before Endovascular Therapy in Basilar Artery Occlusion. Neurology. 2021;96:e1272-e1277.

2. Parsons MW, Miteff F, Bateman GA, et al. Acute ischemic stroke: imaging-guided tenecteplase treatment in an extended time window. Neurology. 2009;72:915-21.

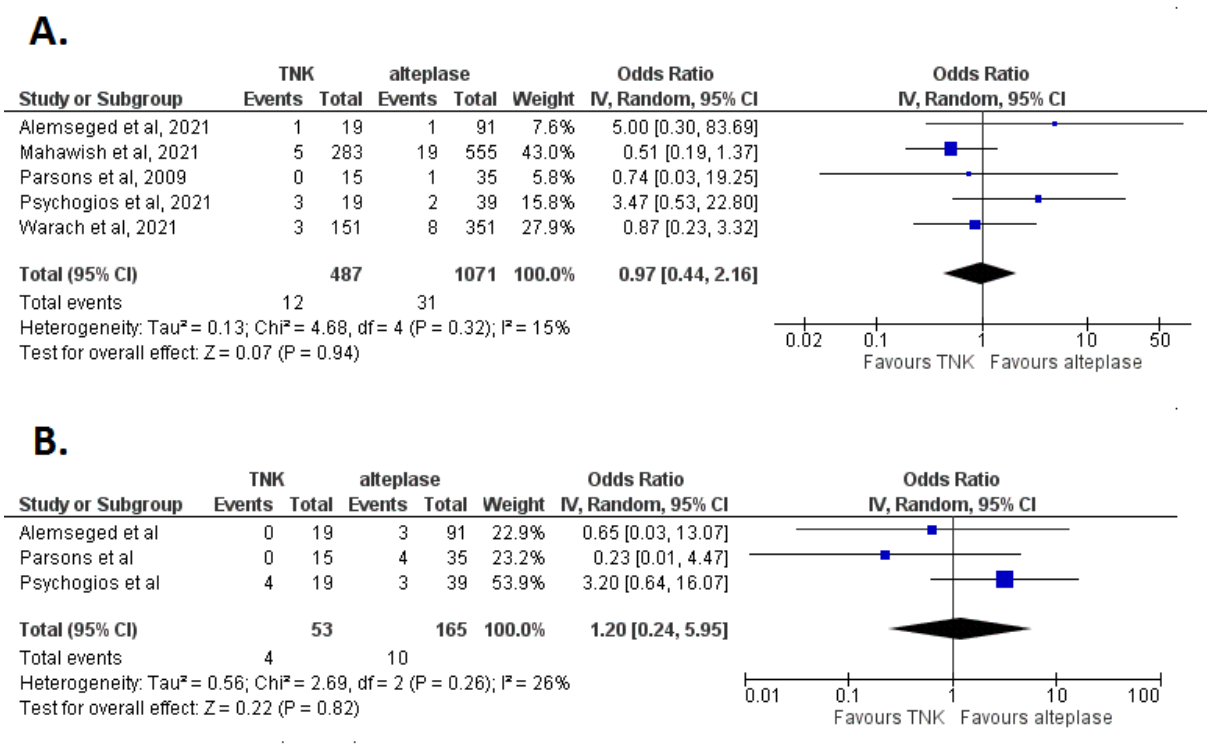
3. Psychogios K, Palaiodimou L, Katsanos AH, et al. Real-world comparative safety and efficacy of tenecteplase versus alteplase in acute ischemic stroke patients with large vessel occlusion. Ther Adv Neurol Disord. 2021;14:1756286420986727.

4. Seners P, Caroff J, Chausson N, et al. Recanalization before Thrombectomy in Tenecteplase vs. Alteplase-Treated Drip-and-Ship Patients. J Stroke. 2019;21:105-107.

5. Mahawish K, Gommans J, Kleinig T, Lallu B, Tyson A, Ranta A. Switching to Tenecteplase for Stroke Thrombolysis: Real-World Experience and Outcomes in a Regional Stroke Network. Stroke. 2021;52:e590-e593.

6. Warach SJ, Miley JT, Mawla M, et al. Abstract P2: Results of a Prospective Observational Cohort Study of Tenecteplase as Standard of Care Stroke Thrombolytic. Stroke. 2021;52:AP2. https://doi.org/10.1161/str.52.suppl_1.P2

eFigure 1: Unadjusted analyses on the comparison between tenecteplase and alteplase for the outcomes of (A) symptomatic intracranial hemorrhage and (B) parenchymal hematoma following intravenous thrombolysis.



eFigure 2: Adjusted analyses on the comparison between tenecteplase and alteplase for the outcomes of symptomatic intracranial hemorrhage following intravenous thrombolysis.

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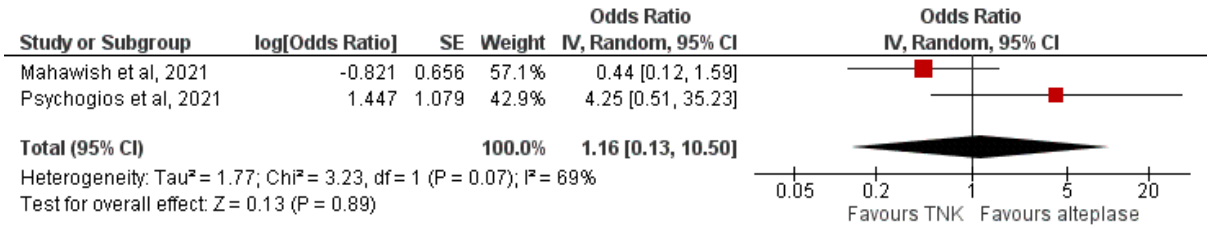

eFigure 3: Funnel plots on the (A) unadjusted and (B) adjusted comparison between intravenous tenecteplase and alteplase for the primary outcome of interest (three-month good functional outcome; modified Rankin Scale 0-2)