Tenecteplase in Acute Ischemic Stroke References

Special Guest: Salia Farrokh, PharmD, BCCCP, FNCS

Guidelines

European Stroke Organisation Guidelines
Alamowitch S, Turc G, Palaiodimou L, et al. European Stroke Organisation (ESO) expedited recommendation on tenecteplase for acute ischaemic stroke. *Eur Stroke J*. 2023; 8(1): 8-54. doi: 10.1177/23969873221150022. Epub 2023 Feb 2. https://pubmed.ncbi.nlm.nih.gov/37021186/

AHA/ASA Guidelines
Powers WJ, Rabinstein AA, Ackerson T, et al. Guidelines for the Early Management of Patients With Acute Ischemic Stroke: 2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. 2019; 50(12): e344-e418. https://pubmed.ncbi.nlm.nih.gov/31662037/

Yaghi S, Willey JZ, Cucchiara B, et al. Treatment and Outcome of Hemorrhagic Transformation After Intravenous Alteplase in Acute Ischemic Stroke: A Scientific Statement for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. 2017; 48(12): e343-e361. https://pubmed.ncbi.nlm.nih.gov/29097489/

Review Articles

Putaala J, Saver JL, Nour M, et al. Should Tenecteplase be Given in Clinical Practice for Acute Ischemic Stroke Thrombolysis? *Stroke*. 2021; 52(9): 3075-3080. https://pubmed.ncbi.nlm.nih.gov/34315253/

Singh N, Menon BK, Dmytriw AA, et al. Replacing Alteplase with Tenecteplase: Is the Time Ripe? *J Stroke*. 2023; 25(1): 72-80. https://pubmed.ncbi.nlm.nih.gov/36746381/

Warach SJ, Dula AN, Milling TJ. Tenecteplase Thrombolysis for Acute Ischemic Stroke. *Stroke*. 2020; 51(11): 3440-3451. https://pubmed.ncbi.nlm.nih.gov/33045929/

Zhu A, Rajendram P, Tseng E, et al. Alteplase or tenecteplase for thrombolysis in ischemic stroke: An illustrated review. *Res Pract Thromb Haemost*. 2022; 6(6): e12795. https://pubmed.ncbi.nlm.nih.gov/36186106/

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Tenecteplase Landmark Articles

TNK S2B
Haley EC, Thompson JLP, Grotta JC, et al. Phase IIB/III trial of tenecteplase in acute ischemic stroke: results of a prematurely terminated randomized clinical trial. *Stroke*. 2010; 41(4): 707-711. https://pubmed.ncbi.nlm.nih.gov/20185783/

TAAIS/Parsons Study
Parsons M, Spratt N, Bivard A, et al. A randomized trial of tenecteplase versus alteplase for acute ischemic stroke. *N Eng J Med*. 2012; 366(12): 1099-1107. https://pubmed.ncbi.nlm.nih.gov/22435369/

ATTEST
Huang X, Cheripelli BK, Lloyd SM, et al. Alteplase versus tenecteplase for thrombolysis after ischaemic stroke (ATTEST): a phase 2, randomised, open-label, blinded endpoint study. *Lancet Neurol*. 2015; 14(4): 368-376. https://pubmed.ncbi.nlm.nih.gov/25726502/

NOR-TEST
Logallo N, Novotny V, Assmus J, et al. Tenecteplase versus alteplase for management of acute ischaemic stroke (NOR-TEST): a phase 3, randomised, open-label, blinded endpoint trial. *Lancet Neurol.* 2017; 16(10): 781-788. https://pubmed.ncbi.nlm.nih.gov/28780236/

EXTEND-IA
Campbell BCV, Mitchell PJ, Churilov L, et al. Tenecteplase versus Alteplase before Thrombectomy for Ischemic Stroke. *N Eng J Med*. 2018; 378(17): 1573-1582. https://pubmed.ncbi.nlm.nih.gov/29694815/

EXTEND-IA Part II
Campbell BCV, Mitchell PJ, Churilov L, et al. Effect of Intravenous Tenecteplase Dose on Cerebral Reperfusion Before Thrombectomy in Patients With Large Vessel Occlusion Ischemic Stroke: The EXTEND-IA TNK Part 2 Randomized Clinical Trial. *JAMA*. 2020; 323(13): 1257-1265. https://pubmed.ncbi.nlm.nih.gov/32078683/

NOR-TEST 2, Part A
Kvistad CE, Næss H, Helleberg BH, et al. Tenecteplase versus alteplase for the management of acute ischaemic stroke in Norway (NOR-TEST 2, part A): a phase 3, randomised, open-label, blinded endpoint, non-inferiority trial. *Lancet Neurol*. 2022; 21(6): 511-519. https://pubmed.ncbi.nlm.nih.gov/35525250/

AcT
Menon BK, Buck BH, Singh N, et al. Intravenous tenecteplase compared with alteplase for acute ischaemic stroke in Canada (AcT): a pragmatic, multicentre, open-label, registry-linked, randomised, controlled, non-inferiority trial. *Lancet*. 2022; 400(10347): 161-169. https://pubmed.ncbi.nlm.nih.gov/35779553/

TRACE-2
Wang Y, Li S, Pan Y, et al. Tenecteplase versus alteplase in acute ischaemic cerebrovascular events (TRACE-2): a phase 3, multicentre, open-label, randomised controlled, non-inferiority trial. *Lancet*. 2023; 401(10377): 645-654. https://pubmed.ncbi.nlm.nih.gov/36774935/

Alteplase Landmark Articles

NINDS
NINDS Study Group. Tissue plasminogen activator for acute ischemic stroke. *N Eng J Med*. 1995; 333(24): 1581-1587. https://pubmed.ncbi.nlm.nih.gov/7477192/

NINDS-2
NINDS Study Group. Tissue plasminogen activator for acute ischemic stroke. *N Eng J Med*. 1995; 333(24): 1581-1587. https://pubmed.ncbi.nlm.nih.gov/7477192/

ECASS-3
Hacke W, Kaste M, Bluhmki E, et al. Thrombolysis with alteplase 3 to 4.5 hours after acute ischemic stroke. *N Eng J Med*. 2008; 359(13): 1317-1329. https://pubmed.ncbi.nlm.nih.gov/18815396/

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Haley EC, Lyden PD, Johnston KC, et al. A pilot dose-escalation safety study of tenecteplase in acute ischemic stroke. *Stroke*. 2005; 36(3): 607-612. https://pubmed.ncbi.nlm.nih.gov/15692126/

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Noh L, Pham F, Haddad L, et al. A practice game changer: Impact of tenecteplase for acute ischemic stroke in a multicenter quality improvement project. *Am J Health Syst Pharm*. 2022; 79(9): e149-e153. https://pubmed.ncbi.nlm.nih.gov/35037028/

Walton MN, Hamilton LA, Salyer S, et al. Major Bleeding Postadministration of Tenecteplase Versus Alteplase in Acute Ischemic Stroke. *Ann Pharmacother*. 2023; 57(5): 535-543. https://pubmed.ncbi.nlm.nih.gov/36004394/

Warach SJ, Dula AN, Milling TJ, et al. Prospective Observational Cohort Study of Tenecteplase Versus Alteplase in Routine Clinical Practice. *Stroke*. 2022; 53(12): 3583-3593. https://pubmed.ncbi.nlm.nih.gov/36148657/

Jacob AP, Parker SA, Bowry R, et al. How Frequent is the One-Hour tPA Infusion Interrupted or Delayed? *J Stroke Cerebrovasc Dis*. 2022; 31(6): 106471. https://pubmed.ncbi.nlm.nih.gov/35395470/

Ray B, Janzen KM, Curran M, et al. Comparison of dosing errors between tenecteplase and alteplase for management of acute ischemic stroke. *J Am Pharm Assoc (2003).* 2023; 63(2): 643-647. https://pubmed.ncbi.nlm.nih.gov/36623954/

Acheampong P, May MT, Ford GA, et al. Bolus-Infusion Delays of Alteplase during Thrombolysis in Acute Ischaemic Stroke and Functional Outcome at 3 Months. *Stroke Res Treat*. 2014; 2014:358640. doi: 10.1155/2014/358640. Epub 2014 Apr 30. https://pubmed.ncbi.nlm.nih.gov/24876988/

Research-In-Progress

NOR-TEST 2, Part B (Tenecteplase 0.25 mg/kg v. Alteplase in thrombolysis-eligible patients) https://clinicaltrials.gov/ct2/show/NCT03854500

TIMELESS trial (Tenecteplase up to 24 hrs with ICA/MCA occlusion)
Albers GW, Campbell BC, Lansberg MG, et al. A Phase III, prospective, double-blind, randomized, placebo-controlled trial of thrombolysis in imaging-eligible, late-window patients to assess the efficacy and safety of tenecteplase (TIMELESS): Rationale and design. *Int J Stroke*. 2023; 18(2): 237-241. https://pubmed.ncbi.nlm.nih.gov/35262424/

TASTE trial (Tenecteplase v. Alteplase with target mismatch on perfusion imaging)
Bivard A, Garcia-Esperon C, Churilov L, et al. Tenecteplase versus alteplase for stroke thrombolysis evaluation (TASTE): A multicentre, prospective, randomized, open-label, blinded-endpoint, controlled phase III non-inferiority trial protocol. *Int J Stroke*. 2023 Feb 2;17474930231154390. doi: 10.1177/17474930231154390. Online ahead of print. https://pubmed.ncbi.nlm.nih.gov/36655938/

MOST trial (Standard of care thrombolysis includes Tenecteplase and Alteplase) https://clinicaltrials.gov/ct2/show/NCT03735979