


CHEMICAL THROMBOLYSIS BATTLE

A silhouette of a superhero, resembling Captain America, is shown flying over a city skyline at dusk. The skyline includes recognizable buildings like the Statue of Liberty, the Empire State Building, and the Space Needle. The background is a gradient of blue and purple, suggesting a sunset or sunrise.

CAPTAIN ALTEPLASE VS. TASKMASTER TENECTEPLASE

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STROKE CARE NETWORK

SPEAKERS



Dr. Larry Goldstein – Moderator

UK HealthCare

Dr. Jessica Lee

UK HealthCare

Dr. Melissa Nestor

UK HealthCare

Dr. Kevin O'Connor

Frankfort Regional Medical Center

Dr. Nadeem Talpur

Norton Healthcare

OBJECTIVES



Upon completion of this activity, participants will be able to:

- Describe benefits of chemical thrombolysis
- Compare Alteplase and Tenecteplase as chemical thrombolysis agents
- Debate the use of Alteplase and Tenecteplase in qualified stroke patients

DISCLOSURES



- Dr. Larry Goldstein MD, FAAN, FANA, FAHA receives royalty from Up-to-Date and Wolters and was a consultant for Abbott
- No other relevant disclosures

ALTEPLASE



FDA approved for stroke within 3 hours of stroke onset

EBP use for within 4.5 hours of stroke onset

Dose

- **0.9 mg/kg - max dose of 90 mg**
- **Infused over 60 minutes**
- **10% as bolus over 1 minute**
- **Rest infused over one hour**

Half-life

- **5-10 minutes**



Warnings

- **Bleeding**
- **Hypersensitivity**
- **Thromboembolism**
- **Cholesterol Embolization**
- **Coag tests may be unreliable**



TENECTEPLASE



Clinical trials underway – currently not FDA approved for stroke

Dose

- 0.25 mg/kg – max dose of 25mg
- Given as a single bolus dose

Half-life

- 17 minutes



Warnings

- **Bleeding**
- **Cholesterol embolization**
- **Thromboembolism**
- **Arrhythmias**
- **Hypersensitivity**
- **Coag tests may be unreliable**



QUESTIONS



REFERENCES



- Potla, N., & Ganti, L. (2022). Tenectaplastase vs. alteplase for acute ischemic stroke: A systematic review. *International Journal of Emergency Medicine*, 15(1). <https://doi.org/10.1186/s12245-021-00399-w>