

Forget the Drip, Just Bolus and Ship: A Regional Initiative to Shift from Alteplase to Tenecteplase and Its Effect on Door-in-Door-out Time

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Background and Purpose

The American Stroke Association recommends establishing regional stroke networks to ensure patients receive consistent, evidence-based care^{1,2}. Recent evidence has suggested that IV tenecteplase (TNK) is as safe and effective as IV alteplase (ALT)³, and based on this some stroke centers have begun adopting TNK as their thrombolytic of choice. IV TNK requires only a single bolus allowing for the immediate transfer of patients. Upstate Comprehensive Stroke Center leadership held meetings and educational sessions with key stakeholders from referring hospitals across the Central and Northern New York regions to discuss the feasibility and advantages of transitioning to TNK for stroke treatment.

A TNK toolkit was provided which included: dosing and safety information, sample order sets, and information on cost-effectiveness and consent.

The purpose of this poster is to demonstrate the effectiveness of this regional initiative in the transition to the use of TNK over ALT, decreasing door-in-door-out (DIDO) times from sending spoke hospitals.

Disclosures

All authors of this poster have nothing to disclose. This poster illustrates the off-label usage of the drug tenecteplase, which has shown promising efficacy in treating acute ischemic stroke.

Methods

Retrospective data analysis was completed by the Comprehensive Stroke Center staff, collecting door-in and door-out times from sending hospitals for all patients who received a thrombolytic for suspected stroke. The data was compiled over an 8-month period from an internal hospital database.

DIDO times of hospitals using TNK were compared to those hospitals using ALT over the 8-month period. Median times for both the ALT and the TNK groups were calculated.

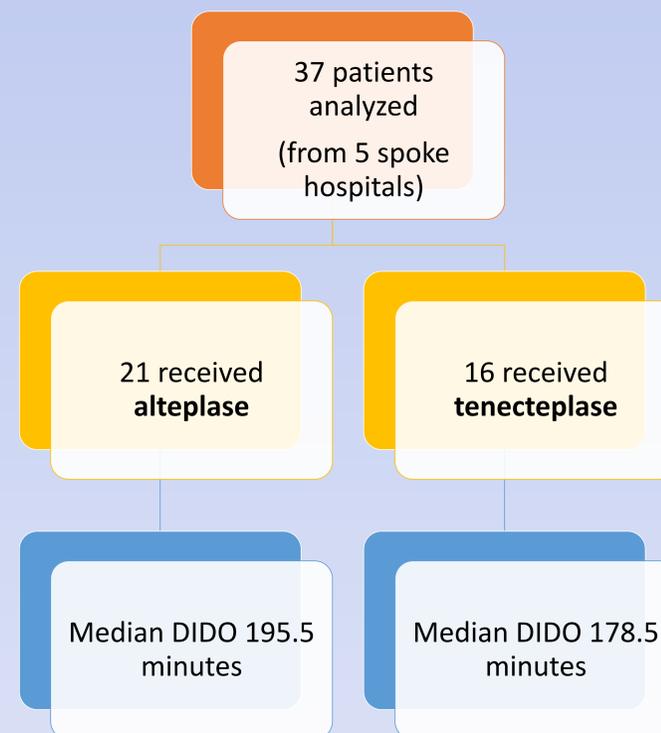


Figure 1. Comparison of DIDO times between patients receiving ALT versus TNK.

Results and Conclusion

There were 37 patients from five spoke hospitals included in the analysis, with 21 receiving ALT and 16 receiving TNK over the study period. Median DIDO times for ALT patients were 195.5 minutes while median DIDO times for TNK patients were 178.5 minutes. There were no major complications noted.

DIDO times for TNK-treated patients appear to be less than those treated with ALT. As more regional hospitals begin to use TNK for suspected stroke, continued monitoring of DIDO times will be required. Additional analysis of DIDO data from transferring hospitals transitioned to TNK is needed.

Implications to Practice

Regional change in stroke systems of care impacting multiple hospitals across a wide geographic area is feasible and impacts the efficiency of treatment. Additional study is needed to determine if the effect is sustainable and results in improved outcomes.

References

1. Adeole O, et al. Stroke 2019;50(7):e187-e210.
2. Jauch EC, et al. Stroke 2021;52(5):e133-e152.
3. Warach SJ, et al. Stroke 2020;51(11):3440-3451

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