# AANS/CNS CEREBROVASCULAR SECTION



American Association of Neurological Surgeons A Section of the American Association of Neurological Surgeons and Congress of Neurological Surgeons



Congress of Neurological Surgeons

January 3, 2020

Seema Verma, MPH Administrator Centers for Medicare and Medicaid Services Department of Health and Human Services Hubert Humphrey Building 200 Independence Ave, SW Washington, DC 20201

## Submitted electronically to newtech@cms.hhs.gov

### RE: FY 2021 Applications for New Medical Services and Technologies Add-On Payments

Dear Administrator Verma:

I hope this letter finds you well. I am writing to you on behalf of the Cerebrovascular Section of the American Association of Neurosurgeons and the Congress of Neurological Surgeons (CV Section) to provide comments on the FY 2021 application for New Medical Services and Technologies Add-On Payment (NTAP) by Viz.ai for the ContaCT system. Specifically, we are writing to emphasize the important relationship between time to treatment and improved clinical outcomes in ischemic stroke.

The CV Section represents, among others, endovascular neurosurgeons who care for stroke patients daily and perform time-sensitive emergent interventions (mechanical thrombectomy or intra-arterial therapy [IAT]). As neurosurgeons and stroke specialists, we appreciate the opportunity to provide feedback to the Centers for Medicare & Medicaid Services (CMS) on the relationship between time to treatment and clinical outcomes in ischemic stroke. Reducing the time to treatment is a major driver of technology developed to treat patients with stroke.

We are certain that you may have heard the saying that "time is brain"<sup>1</sup>, and specifically one minute of a stroke untreated translates into 1.9 million neurons lost.<sup>1</sup> Each hour in which treatment fails to occur, the brain loses as many neurons as it does in almost 3.6 years of normal aging. The time dependency of clinical outcomes in stroke has been demonstrated both for mechanical thrombectomy and for tissue-type plasminogen activator (tPA) therapy in numerous clinical trials. In a multicenter, randomized clinical trial of IAT versus no IAT in 500 patients, it was found that every hour of reperfusion delay decreased the proven benefit of IAT by 6% per hour of delay.<sup>2</sup>

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The importance of time in stroke has also been demonstrated via a meta-analysis of data from 58,353 patients with acute ischemic stroke treated with tissue-type plasminogen activator (tPA). Analyses demonstrated that every 15-minute decrease of the onset time to treatment (OTT) resulted in significantly reduced in-hospital mortality, reduced symptomatic intracranial hemorrhage, increased achievement of independent ambulation at discharge and increased discharge to home.<sup>3</sup>

As an organization of neurosurgeons who treat patients with ischemic stroke, we felt it important to also provide our input on not only time to treatment but also time to notification. Our ability to care for patients is strengthened when a system of care helps us identify patients, analyze data and provide treatment as rapidly as possible. Technologies that reduce time to notification of the endovascular neurosurgeon create that efficiency and are a worthwhile investment.

Thank you for considering our comments. If you have any questions or need additional information, do not hesitate to contact us.

Yours sincerely,

Babu G. Welch, MD FAANS Chair, Cerebrovascular Section of the AANS/CNS

<sup>&</sup>lt;sup>1</sup> Saver JL. Time is brain—quantified. *Stroke*. 2006 Jan;37(1):263-6.

<sup>&</sup>lt;sup>2</sup> Fransen PS, Berkhemer OA, Lingsma HF, et al. Time to reperfusion and treatment effect for acute ischemic stroke: a randomized clinical trial. *JAMA Neurol.* 2016;73:190-196.

<sup>&</sup>lt;sup>3</sup> Saver JL, Fonarow GC, Smith EE, et al. Time to Treatment With Intravenous Tissue Plasminogen Activator and Outcome From Acute Ischemic Stroke. *JAMA*. 2013;309(23):2480–2488.