

Patients who wake up with stroke may be candidates for clot-busters

12 March 2009

Giving clot-busting drugs to patients who wake up with stroke symptoms appears to be as safe as giving it to those in the recommended three-hour window, according to researchers at The University of Texas Medical School at Houston.

The results of the study, "Thrombolytic Therapy for Patients Who Wake Up With [Stroke](#)," are published in the March issue of *Stroke*, a journal of the American Heart Association.

"The results of our study serve as the only published material of patients who woke up with ischemic [stroke symptoms](#) and were treated with thrombolytic therapy," said Andrew Barreto, M.D., lead author and assistant professor of neurology at the UT Medical School at Houston. "It stands as the only support for the safety of stroke treatment in wake-up [stroke patients](#)."

Stroke occurs when [blood flow](#) to the brain is interrupted by a blockage or a rupture in an artery, depriving brain tissue of oxygen. It is the third-leading cause of death behind heart disease and cancer. According to the American Stroke Association, nearly 800,000 Americans suffer a stroke each year - one every 40 seconds. On average, someone dies of stroke every three to four minutes.

According to protocol from the U.S. Food and Drug Administration, thrombolytic medications such as intravenous [tissue plasminogen activator \(tPA\)](#) should be given to patients with a blockage within three hours of the onset of stroke symptoms.

Approximately 25 percent of patients with a blockage, called an [ischemic stroke](#), wake up with their symptoms. That could place them outside the three-hour window and therefore they are not normally given tPA, except under an off-label, compassionate care exemption.

"The offer of compassionate tPA treatment was

made by the treating stroke neurologist," Barreto said. "Usually these were younger patients with moderate to severe disabling strokes who had no other treatment options."

The researchers compared 174 patients who were treated with tPA within the three-hour, standard-of-care window with 46 wake-up stroke patients who received off-label thrombolytic therapy. The two groups experienced similar rates of excellent outcomes and favorable outcomes.

In addition, wake-up stroke patients treated with thrombolytic therapy have higher rates of excellent and favorable outcomes than wake-up stroke patients who did not receive it, according to the research.

Barreto said further studies will need to occur to verify the results.

"An indication for treatment of thrombolytic therapy will only come after large, randomized, blinded/controlled clinical trials are conducted," he said. Barreto and senior author Sean Savitz, M.D., assistant professor of neurology at the medical school, are currently working with other stroke centers to create collaboration and set up such a trial.

Source: University of Texas Health Science Center at Houston ([news](#) : [web](#))

APA citation: Patients who wake up with stroke may be candidates for clot-busters (2009, March 12) retrieved 27 May 2022 from <https://medicalxpress.com/news/2009-03-patients-candidates-clot-busters.html>

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