Researchers at the University of South Florida have developed a new treatment for stroke that is not dependent on the type of stroke and will extend the therapeutic window of opportunity. Conivaptan is already approved for human use as a diuretic, and in experimental studies it has been shown to reduce neural damage when administered as much as six hours after a stroke.

Annually, more than 800,000 people are affected by stroke in the United States. About 500,000 of these people will die or become permanently disabled as a result of the condition. Although it has been studied for centuries, stroke remains a leading cause of death worldwide. Current treatment methods that are approved for use, such as tissue plasminogen activators, have many limitations that narrow the therapeutic window to just a few hours and may only be useful for certain types of stroke. This lack of options has led to a growing need for a more efficient and inclusive solution for this widespread health problem.

Our researchers have recently discovered that conivaptan, when administered six hours after permanent middle cerebral occlusion (MCAO)- a rat model of stroke, decreases neural infarct size, edema and neuroinflammation. Conivaptan administration could be administered in conjunction with agents, including tissue plasminogen activator. There is great therapeutic potential of this FDA-approved agent for stroke patients.

ADVANTAGES:
- Reduces neural damage
- Extends the therapeutic window two–fold over current medication
- Administration not dependent on type of stroke
- FDA-approved drug

Conivaptan is a diuretic that has the potential to treat stroke by reducing neural damage and neuroinflammation. It could be administered in conjunction with agents, including tissue plasminogen activator, to provide a more efficient and inclusive solution for stroke patients.