

More heart infections and strokes in the U.S. linked to national opioid epidemic

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The ongoing U.S. opioid epidemic may have led to an increase in the number of strokes due to more bacterial infections of the heart, or infective endocarditis, according to preliminary research to be presented at the American Stroke Association's International Stroke Conference 2021.

According to the most recent [comprehensive data](#) (January 2020) from the Centers for Disease Control and Prevention (CDC), stroke is the fifth leading cause of death in the United States and a major contributor to long-term disability. Typically each year in the United States, up to 47,000 people are treated in the hospital for endocarditis, which increases stroke risk. This serious, sometimes deadly infection occurs when bacteria in the bloodstream reach the heart lining, valves or blood vessels. While endocarditis is uncommon, people with certain heart conditions are at greater risk.

Another risk factor for endocarditis is intravenous (IV) [drug use](#). During IV drug use, bacteria from the injection needle enter the blood stream. In light of the ongoing, two decades-long national opioid

epidemic, researchers wanted to understand the risk of stroke among patients with endocarditis from IV drug use compared to patients with endocarditis due to other causes. They also measured the frequency of endocarditis related to IV drug use.

This study included 351 patients treated for endocarditis at Ohio State University's Wexner Medical Center between January 1, 2014 and July 1, 2018. Nearly half of the patients had a history of IV drug use.

The researchers found:

- Over the four-year study, the occurrence of endocarditis from IV drug use increased by 630%.
- Patients with endocarditis due to IV drug use were much more likely (26%) than those with endocarditis from other causes (14%) to have a stroke.
- Patients with endocarditis from IV drug use were more likely than other patients to be homeless, unemployed and uninsured.

"Patients who are known IV drug users who have endocarditis should be more carefully screened for symptoms of cardiovascular disease," said the study's corresponding author Shahid M. Nimjee, M.D., Ph.D., associate professor of neurosurgery and surgical director of the Comprehensive Stroke Center at Ohio State University Wexner Medical Center in Columbus, Ohio.

"The wider societal impact of the opioid epidemic is not well understood," Nimjee said. "Our research suggests that the impact of the opioid epidemic is far-reaching and contributes to increased costs in the criminal justice, health care systems and the workplace. The increased costs can be particularly substantial for stroke care."

Medical costs were more than two times higher among patients with endocarditis from IV drug use

than among those with endocarditis from other causes. This translated into a difference of more than \$100,000 in health care costs during admission per patient, Nimjee noted.

The study did not control for other factors that could have affected [stroke](#) risk, and it included patients from only one hospital, therefore, the findings may not apply to other groups of patients.

Provided by American Heart Association

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