

## Infective Endocarditis: A New Consequence of the Opioid Epidemic

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A "staggering increase" in the occurrence of drug use–associated infective endocarditis appears to be a consequence of the current opioid epidemic, a new study suggests.

"Our results show that infective endocarditis is a severe and largely underdiscussed consequence of the opioid crisis and that a sharp increase of cases in drug users is fundamentally reshaping the landscape of this condition," lead author Asher Schranz, MD, University of North Carolina at Chapel Hill, told *Medscape Medical News*.

For the study, Schranz and colleagues examined hospitalization trends for drug use–associated infective endocarditis during the past 10 years in 100 hospitals in North Carolina.

They found that the rate of drug use–associated infective endocarditis hospitalizations with valve surgery rose 13-fold in that state from 2007 to 2017. In the final study year, 42% of all infective endocarditis surgeries were performed in patients who were drug users.

This indicates "a dramatic shift in the demographic and clinical profile of patients undergoing infective endocarditis surgery," Schranz said.

"While there is a high awareness of the risk of HIV, hepatitis C, and overdose with drug use, infective endocarditis is not thought of as a major issue. However, our results suggest that it is not an uncommon consequence," he noted.

"These patients tend to have lengthy hospital stays, as infective endocarditis requires 6 weeks of parenteral IV antibiotics, and it is often not thought appropriate to send patients with a history of drug use home with an intravenous catheter," he said. "This leads to high hospital costs and — as many of the patients are uninsured — then these costs are falling to the hospitals."

Schranz also points out that more could be done to help patients withdraw from drug use while in hospital.

"The long hospital stays necessary for these patients gives a fantastic opportunity to engage in addiction care, but I'm not sure we are doing the best in this regard at present because of inadequate infrastructure," he said. "We need to embrace inpatient and outpatient addiction treatment programs."

He noted that the average cost for a hospital stay for drug use–associated infective endocarditis in this study was \$250,000. "This drastically outweighs the costs of treating opioid use disorder even over several years," he said.

The study was [published online](#) December 4 in the *Annals of Internal Medicine*.

The author of an [accompanying editorial](#), Alysse Wurcel, MD, Tufts Medical Center, Boston, Massachusetts, told *Medscape Medical News*: "The sharp increase in drug user–associated infective endocarditis parallels the increase in opioid use we are currently seeing. The infection is likely derived from *Staph aureus* or *Streptococcus* bacteria on the skin, which enters the blood stream when drugs are injected."

Infective endocarditis is an acute condition that, although very serious, can be treated. The underlying problem, however, is the growing epidemic of opioid use disorder, Wurcel noted.