Drug Use Is Driving Troubling Rise in Heart Infections

The opioid epidemic is principally responsible for a recent increase in infective endocarditis in the United States.

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The opioid epidemic is principally responsible for a recent increase in infections of the heart's inner lining or valves, known as infective endocarditis.

Diagnosed among nearly 34,000 people annually, the infection is caused by bacteria or fungi in the bloodstream entering those portions of the heart. It is often associated with sharing contaminated syringes or other drug-injection equipment. The mortality rate is about 20%.

Publishing their findings in the Journal of the American Heart Association, a research team led by Serge C. Harb, MD, an assistant professor of medicine at the Cleveland Clinic Lerner College of Medicine in Ohio, analyzed data from the National Inpatient Sample Registry, covering 2002 to 2016. They looked at 954,709 cases of infective endocarditis, 860,359 of which occurred in people who did not report drug use and 94,350 (9.9%) of which were among people who reported drug use.

During the study period, the proportion of annual diagnoses of the heart infection that were related to drug use doubled from 8% to 16%, coinciding with the growing opioid crisis. There were increases in the annual number of drug-related diagnoses of endocarditis in all U.S. regions, the highest of which was seen in the Midwest, which recorded a 4.9% annual increase in this rate.

The study authors found that those with infections related to drug use were predominantly young white lower-income men. The median age was 38 years old; 42% were in the lowest U.S. income quartile; and about 45% were receiving Medicaid. They also had higher rates of HIV, hepatitis C virus (HCV) and heavy alcohol use compared with those with infective endocarditis not linked to drugs. Finally, those with drug use–associated endocarditis stayed in the hospital longer, had higher health care costs and were more likely to receive heart surgery, although they were less likely to die while in the hospital, likely because they tended to be younger.

"Nationwide public health measures need to be implemented to address this epidemic, with targeted regional programs to specifically support patients at increased risk," Harb said in a press release. "Specialized teams, including but not limited to cardiologists, infectious disease

specialists, cardiac surgeons, nurses, addiction specialists, case managers and social workers, are needed to care for these patients."

Harb continued: "Appropriately treating the cardiovascular infection is only one part of the management plan. Helping these patients address their addictive behaviors with social supports and effective rehabilitation programs is central to improving their health and preventing drug abuse relapses."

To read a press release about the study, click here.

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