Young, healthy people with opioid use disorder at increased risk of death from sepsis, study suggests

ORLANDO, Fla—Overdosing isn’t the only health risk for people who misuse opioids: they also are more likely to be hospitalized for sepsis and to die if they are young and otherwise healthy, according to a nationwide study presented at the Society of Critical Care Medicine’s 49th Critical Care Congress.

Sepsis is the body’s extreme and potentially deadly response to an infection. People with opioid use disorder (OUD) are more prone to fungal and gram-positive bacterial infections of the soft tissue, bones, joints and bloodstream, likely because many inject the drugs.

In analyzing U.S. hospitalizations during a seven-year period, researchers determined that 1 in 14 hospitalized patients with OUD had sepsis. Further, sepsis was present in 1 in 3 patients with OUD who died in the hospital.

“Sepsis is an increasing problem among people with OUD, especially those who are young and healthy,” said Mohammad Alrawashdeh, M.S.N., Ph.D., postdoctoral research fellow in therapeutics research and infectious disease epidemiology at Harvard Medical School & Harvard Pilgrim Health Care Institute, Boston. “People with OUD who inject the drugs are at risk for a serious and potentially deadly infection if they use non-sterile needles.”

Researchers analyzed 6,715,286 hospital records between 2009 and 2015 and found 375,479 patients had sepsis (5.6%), 164,891 had OUD (2.5%) and 11,861 (.2%) had both. The percentage of people with sepsis who had OUD increased from 3% in 2009 to 4.2% in 2015. Those with OUD were also more likely to have sepsis: 7.2% of patients with OUD had sepsis vs. 5.6% of patients who did not have OUD.

Among all patients with sepsis, those who also had OUD were:
- Younger, on average of 53 years old vs. 67 years old
- Healthier, with an average Elixhauser score of 7.3 vs. 12.6, meaning they had fewer other health issues, such as high blood pressure and diabetes
- More likely to have an infection of the heart lining (endocarditis), 3.9% vs. 0.7%
• More likely to require mechanical ventilation, 32.6% vs. 24%
• More likely to stay in the intensive care unit longer, 7.9 days vs. 7 days on average

OUD contributed disproportionately to sepsis-associated deaths in younger and healthier patients. Patients with OUD accounted for 2.1% of deaths among sepsis hospitalizations overall, but 3.3% of healthy patients and 7.1% of those younger than 50.

OUD is a “problematic pattern of opioid use that causes significant impairment or distress,” according to the Centers for Disease Control and Prevention.

“In combatting the opioid crisis, public health officials should also raise awareness with both patients and providers about the risk of death due to sepsis,” said Dr. Alrawashdeh.

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