Alcohol withdrawal rates among hospitalized patients rose 34% during COVID pandemic
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During the COVID-19 pandemic in 2020, there was a 34% increase in alcohol withdrawal (AW) rates among hospitalized patients at ChristianaCare, according to a research letter published today in the Journal of the American Medical Association.

The study is believed to be the first to quantify the impact of the COVID-19 pandemic on alcohol withdrawal among hospitalized patients. The retrospective study conducted at ChristianaCare, one of the largest health systems in the mid-Atlantic region, found that the rate of alcohol withdrawal in hospitalized patients was consistently higher in 2020 compared to both 2019 and the average of 2019 and 2018.

"Our findings are relevant nationally and serve as a clarion call to alert other hospital systems to the increased need to screen for and treat alcohol use withdrawal, and to refer patients for ongoing alcohol treatment," said Terry Horton, M.D., ChristianaCare's chief of Addiction Medicine and senior author on the research letter.

Alcohol withdrawal is a complex syndrome that occurs when a heavy drinker suddenly stops or significantly reduces alcohol intake. If left untreated, alcohol withdrawal can progress to severe and potentially deadly symptoms of delirium tremens, characterized by extreme confusion, agitation, seizures and hallucinations.

"There has been concern that pandemic-associated stress, restrictions and reduced access to recovery supports would result in more alcohol consumption, increasing the risk that some will develop or worsen alcohol use disorders, but it has been difficult to measure these impacts," Dr. Horton said.

"Our study makes use of ChristianaCare's ongoing surveillance for alcohol withdrawal, which can occur when patients admitted to the hospital are cut off from all sources of alcohol," he said.

The team used a revised Clinical Institute Withdrawal Assessment for Alcohol tool to identify hospitalized alcohol withdrawal patients at ChristianaCare's two Delaware hospitals, Christiana Hospital and Wilmington Hospital, from their electronic health records, between Jan. 1, 2018 and Sept. 22, 2020.

Summary statistics were calculated for patients in three time periods in 2020, before the stay-at-home order (Jan. 1 - March 24); during the stay-at-home order (March 25 - May 31) and after the stay-at-home order (June 1 - Sept. 22). Incidence rates of alcohol withdrawal were compared for corresponding biweekly periods in 2018, 2019, and 2020.

Adjusting for seasonal variations, alcohol
withdrawal in hospitalized patients increased overall by 34 percent during the pandemic from March 25 - Sept. 22, as compared to the same period in 2019, with the largest incidence (84 percent) occurring in the last two weeks of the stay-at-home order.

The study population included 340 patients diagnosed with alcohol withdrawal before the stay-at-home order, 231 during the stay-at-home order, and 507 after the stay-at-home order. Patient characteristics were similar between the three time periods, but the highest rates were seen in middle-aged white men (mean age 52).

"We designed the study to capture the big picture," said Psychiatry Resident Ram Sharma, M.B.B.S., (PGY-3), lead author on the study. "We expected to see higher rates of alcohol withdrawal during the pandemic, and the data proved us right. Increased vigilance to identify alcohol withdrawal with systematic screening of hospitalized patients will be pivotal as spikes in the pandemic force future stay-at-home orders."

Hospitalized patients suffering from AW can benefit from early intervention and referral-to-treatment programs. Since 2008, ChristianaCare's Project Engage program has served more than 10,000 hospitalized patients, with about 50% connecting to ongoing treatment.


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