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LETTER

Incorporating ondansetron and baclofen in alcohol use disorder treatment

Hayley Ross[1] · Bruce Harries[1,2] · Izabela Szelest[1,3] · Roland Engelbrecht[1] · John C. Umhau[1,4]

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Dear Editor,

The increased rates of alcohol consumption during the COVID-19 pandemic are adding to the burden on our healthcare system, creating challenges that will extend beyond the pandemic. A survey by the Office of the Provincial Health Officer and BC Centre for Disease Control found an increase in alcohol consumption rates due to the social isolation, financial difficulties, and overall stress people experienced during the pandemic [1]. Consequently, emergency department visits relating to severe alcohol withdrawal and suicide attempts have also increased [2]. Therefore, a more comprehensive approach should be taken in promoting all available pharmacotherapies, including promising ones, to maximize the effectiveness of treatment.

In 2019, the British Columbia Centre on Substance Use (BCCSU) released guidelines for the clinical treatment of Alcohol Use Disorder (AUD) which endorses the use of naltrexone and acamprosate as first-line treatment options and the "off label" use of topiramate and gabapentin as second-line pharmacotherapies [3]. Additionally, two more medications (ondansetron and baclofen) may be effective in certain populations under specific conditions [3]. Ondansetron, a serotonin 5-HT3 receptor antagonist, is currently approved for treatment of nausea resulting from chemotherapy [3]. At lower dosage (4 µg/kg b.i.d.), it has been shown to reduce alcohol cravings in individuals with alcohol dependence before age 25 (early onset AUD, EOA)[4]. Baclofen has been governed by a temporary recommendation for use (TRU) in France since 2014 for treatment of AUD in patients unresponsive to other pharmacotherapies [5]. Baclofen, a $GABA_B$ receptor agonist, is approved for the treatment of muscle spasticity and may be an option if a patient has liver complications [6].

It should be noted that, in some cases, combination drug therapies have been recommended. For example, a combination of ondansetron and naltrexone (4 µg/kg ondansetron + 25 mg naltrexone twice a day) collectively improved drinking outcomes in early onset AUD, such as drinks per day, drinks per drinking day, and number of days abstinent [7].

Although treatments for AUD have been available for decades, few individuals are actually offered treatment [8]. Additionally, the healthcare system is ill equipped to deal with pressures arising from the pandemic. A more comprehensive approach should be taken in addressing all potential pharmacotherapies to maximize the effectiveness of treatment. The available treatments, including promising ones, should be considered for all patients with AUD. This action will significantly help alleviate strain on the healthcare system, including in Emergency Departments.

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✉ Izabela Szelest
izabela.szelest@cauds.org

1 The Canadian Alcohol Use Disorder Society, Penticton, BC, Canada

2 Improvement Associates Ltd., Edmonton, AB, Canada

3 Care. Transformed Consulting, Penticton, BC, Canada

4 Alcohol Recovery Medicine, https://www.alcoholrecoverymedicine.com/

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