Published in final edited form as:

Addict Disord Their Treat. 2017 March ; 16(1): 36–37. doi:10.1097/ADT.0000000000000091.

Alcohol Use among Persons on Methadone Treatment

Jan Klimas, PhD, MSc^{1,2}, Huiru Dong, MSc¹, Sabina Dobrer, MA¹, M-J Milloy, PhD^{1,3}, Thomas Kerr, PhD^{1,3}, Evan Wood, MD, PhD^{1,3}, and Kanna Hayashi, PhD^{1,3}

¹British Columbia Centre for Excellence in HIV/AIDS, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC, CANADA, V6Z 1Y6 ²School of Medicine, University College Dublin, Coombe Healthcare Centre, Dolphins barn, Dublin 8, Ireland ³Department of Medicine, University of British Columbia, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC, CANADA, V6Z 1Y6

Keywords

alcohol; methadone maintenance treatment; heroin; longitudinal study; mortality

Alcohol Use among Persons on Methadone Treatment

We read with interest Dr Varshney et al.'s article on brief interventions for alcohol use among persons on maintenance treatment published ahead-of-print on August 11, 2015.¹ While alcohol is found in the majority of drug-related deaths that involve illicit drugs, around the globe,²³ maintenance therapy with methadone (MMT), or buprenorphine, reduces morbidity and mortality among people who use opiates.⁴ Although one common clinical challenge is comorbid alcohol use and opioid use disorder, with guidelines often recommending withholding methadone in this context given the potential for fatal overdose due to drug interactions,⁵ alcohol's impact on the health outcomes of MMT patients has been “overlooked and underestimated”.⁶ Therefore, we examined the impact of heavy alcohol use on mortality among MMT patients.

Methods

We derived data from open, community-recruited prospective cohorts of people who use drugs in Vancouver, Canada: the Vancouver Injection Drug Users Study (VIDUS) and the AIDS Care Cohort to evaluate Exposure to Survival Services (ACCESS). As described elsewhere, through snowball sampling and street outreach, VIDUS enrolls HIV-seronegative adults who inject drugs, and ACCESS enrolls HIV-seropositive adults who use illicit drugs other than cannabis.³ Bi-annual follow-up procedures include interviewer-administered, harmonized questionnaires eliciting demographic, behavioural and other information.

Send correspondence to: Jan Klimas, MSc, PhD, Postdoctoral Fellow, Urban Health Research Initiative, B.C. Centre for Excellence in HIV/AIDS, 608-1081 Burrard Street, Vancouver, B.C., V6Z 1Y6, Canada, Tel: +1 (604) 682-2344, Fax: +1 (604) 806-9044, jan.klimas@ucd.ie.

Conflict of Interest: None reported.

Participants received a \$30 CDN stipend at each interview. As in a previous study, dates and causes of death of our participants were ascertained through a confidential data linkage with a provincial registry.³ The University of British Columbia/Providence Healthcare Research Ethics Board approved both studies.

We included participants who: (1) were recruited between December 1, 2005 and May 31, 2014 and had at least one follow-up visit; (2) reported “on MMT” in last six months at baseline and (3) a history of injection drug use at baseline. For those who initiated MMT during follow-up, we considered their first response of “on MMT” as their baseline response.

The primary explanatory variable was the National Institute on Alcohol Abuse and Alcoholism (NIAAA)-defined heavy alcohol use in the past six months, treated as a time-varying variable.⁵ The primary outcomes of interest were all-cause mortality and overdose (OD) mortality. Extended Cox regression analysis examined the bivariate association between heavy alcohol use and the time to death.

Results

A total of 1139 participants were included in this analysis (702/ 61.6% males) and followed for a median of 73.4 months (interquartile range [IQR] = 36.3-97.9). The median age at baseline was 42.18 years (IQR = 35.5-48.3), and 85 (7.5%) reported heavy alcohol use at baseline. In total, 140 (12.3%) participants died during follow-up, and 21 (1.8%) died due to OD. In regression analyses, heavy alcohol use was not significantly associated with all-cause mortality [hazard ratio (HR) = 0.97; 95% confidence interval (CI) = 0.56 – 1.67], or OD mortality (HR =1.51; 95% CI = 0.45 – 5.11), respectively. The associations remained insignificant when accounting for being in- and out- of MMT.

Discussion

In this study, heavy drinking did not appear to predict all-cause and OD mortality among people in MMT. In a recent analysis, binge alcohol use was identified as an independent predictor of death among a community-recruited cohort of people who inject drugs, after adjusting for MMT enrolment.⁷ While this aligns well with previous literature, the measure of alcohol use was different from the present study (binge use vs. NIAAA-defined heavy alcohol use). Further, other work has suggested that MMT may also decrease the initiation of heavy drinking, further underlining the beneficial effects of opioid maintenance treatment on the health of people with opioid use disorders.⁵ These findings could help inform future investigations into the role of heavy alcohol use, as described by the prospective study from India,¹ in the context of maintenance therapy.

Acknowledgments

The authors thank the study participants for their contribution to the research, as well as current and past researchers and staff. US National Institutes of Health supported the study (R01DA021525, U01DA038886, R25DA037756). Dr. Milloy is supported in part by the National Institutes of Health (R01-DA021525) and the Michael Smith Foundation for Health Research. His institution has received unstructured funds from NG Biomed, Ltd., to support his research. The ELEVATE grant: Irish Research Council International Career Development Fellowship – co-funded by Marie Curie Actions (ELEVATEPD/2014/6); and the European Commission grant (701698) supports Dr.

Jan Klimas. Dr. Kanna Hayashi is supported by the Canadian Institutes of Health Research New Investigator Award (MSH-141971).

The funders had no role in the design and conduct of the study; the collection, analysis, and interpretation of the data; the preparation of the manuscript; or the decision to submit the manuscript for publication.

References

1. Varshney M, Ambekar A, Lal R, et al. Brief Interventions for Harmful Alcohol Use in Opioid-dependent Patients on Maintenance Treatment With Buprenorphine: A Prospective Study From India. *Addictive Disorders & Their Treatment*. 2015 Publish Ahead of Print.
2. Heinz A, Beck A, Rapp MA. ALcohol as an environmental mortality hazard. *JAMA Psychiatry*. 2016; 73(6):549–50. [PubMed: 27096667]
3. Hayashi K, Dong H, Marshall BDL, et al. Sex-Based Differences in Rates, Causes, and Predictors of Death Among Injection Drug Users in Vancouver, Canada. *American Journal of Epidemiology*. 2016; 183(6):544–52. [PubMed: 26865265]
4. Mattick RP, Breen C, Kimber J, et al. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane database of systematic reviews (Online)*. 2009; (3) CD002209.
5. Klimas J, Wood E, Nguyen P, et al. The Impact of Enrolment in Methadone Maintenance Therapy on Initiation of Heavy Drinking among People Who Use Heroin. *European Addiction Research*. 2016; 22(4):210–14. [PubMed: 27045681]
6. Staiger PK, Richardson B, Long C, et al. Overlooked and underestimated? Problematic alcohol use in clients recovering from drug dependence. *Addiction*. 2013; 108(7):1188–93. [PubMed: 23075415]
7. Johnson C, Dong H, Ahamad K, et al. Impact of binge alcohol on mortality among people who inject drugs. *Addictive behaviors reports*. 2015; 2:28–32. [PubMed: 26097893]