



## RESEARCH SUMMARY

Date Compiled: December 2020

### Key takeaways from included research:

- Alcohol use has risen over the past 30 years and is forecast to continue to rise. Concurrently, there has been an increased incidence of alcohol-associated liver disease (ALD). Given the rising incidence of ALD and associated mortality, it is imperative to identify the underlying factors driving these trends, beginning with behaviors related to alcohol use.
- Of 51 state comprehensive cancer control plans, approximately 39% to 60% (n = 20–31) of plans covered 5 general cancer prevention topics that apply to breast cancer (alcohol intake, breastfeeding, diet/nutrition, healthy weight, and physical activity); fewer plans (n = 6–22) discussed the link between these factors and breast cancer. Alcohol intake was addressed in 11 plans; 10 states stated an alcohol-related objective.
- A study to describe the sociodemographic and clinical characteristics of people who visit emergency departments frequently for alcohol-related reasons examined their 1-year overall mortality, premature mortality and cause of death as a function of emergency department visit frequency in Ontario, Canada. The adjusted mortality rate was 38% higher for patients with 5 or more visits than for those with 2 visits (adjusted hazard ratio 1.38, 95% confidence interval 1.19–1.59).
- A study assessing the characteristics of digital age gates among the top 25 alcohol brands among American adolescents found only one out of every five alcohol websites blocked futures attempts to gain access after entering a response indicating the user was under the legal drinking age. Users were allowed indefinite attempts to enter a DOB that was of legal drinking age.

## **CURRENT MANAGEMENT OF ALCOHOL-ASSOCIATED LIVER DISEASE** **November 2020**

### **Abstract**

Alcohol consumption is a major risk factor for various diseases worldwide and is one of the most common causes of chronic liver disease. Alcohol use has risen over the past 30 years and is forecast to continue to rise. Concurrently, there has been an increased incidence of alcohol-associated liver disease (ALD). Alcohol use, regardless of the amount, leads to years of health loss across populations when considering the strong association between alcohol consumption and overall disease burden. Given the rising incidence of ALD and associated mortality, it is imperative to study the underlying factors driving these trends. This article summarizes the diagnosis and management of ALD, with a focus on various screening and prognostic tools and treatments for -alcohol-associated hepatitis.

Alcohol consumption is a major risk factor for various diseases globally and is linked to more than 200 acute and chronic disease processes. It is also one of the most common causes of chronic liver disease. From 1990 to 2017, the annual adult-per-capita consumption increased by 0.6 liters and is forecast to reach 7.6 liters by 2030. Alcohol use is expected to continue to rise, predominantly in middle- and upper-income countries such as India, China, and the United States.

Concurrently with the rise of alcohol use has been an increased incidence of alcohol-associated liver disease (ALD). Due to improved screening, treatment availability, and public health interventions, there has been a decline in other causes of acquired chronic liver diseases, such as chronic hepatitis C virus infection, which used to be one of the most common reasons for liver transplants globally. A meta-analysis of patients on the liver transplant waiting list revealed that the number of patients with ALD is increasing while the number of patients with chronic hepatitis C virus infection is decreasing.

ALD presents as a broad spectrum of disorders, from fatty liver or steatosis (with or without steatohepatitis) to severe forms of liver injury, including alcohol-associated hepatitis (AH), cirrhosis, and hepatocellular carcinoma. ALD is thought to be responsible for nearly half of liver-related mortalities globally. According to the 2018 global status report of alcohol published by the World Health Organization, AH and liver cirrhosis are associated with a particularly high rate of mortality, reaching up to 50% in severe acute AH. As such, the global disease burden for ALD is soaring. In 2016, approximately 21.5 million years of life were lost due to ALD (measured as disability-adjusted life years).<sup>9</sup> These years were lost primarily due to premature death as opposed to disability. Death related to liver cirrhosis is projected to triple by the end of 2030, driven largely by the increasing prevalence of ALD and nonalcoholic fatty liver disease. The overall number of hospitalizations and overall inpatient costs of individuals with a primary or secondary ALD have also increased over the last 10 to 15 years; there were 249,884 AH-related hospitalizations in 2002 compared to 326,403 in 2010. Individuals with ALD usually present with a more serious illness and are admitted more frequently for liver-related issues.

Given the rising incidence of ALD and associated mortality, it is imperative to identify the underlying factors driving these trends, beginning with behaviors related to alcohol use. This article focuses primarily on how to approach the diagnosis and management of ALD, and includes a discussion of various screening and prognostic tools and a review of pharmacologic therapy, nutritional therapy, and liver transplantation (LT) for AH.

**Source:** Siddiqi, F.A., Sajja, K.C., & Latt, N.L. 2020. Current management of alcohol-associated liver disease. *Gastroenterology & Hepatology*, 16(11).

<https://www.gastroenterologyandhepatology.net/archives/november-2020/current-management-of-alcohol-associated-liver-disease/>

**MORTALITY AMONG PATIENTS WITH FREQUENT EMERGENCY DEPARTMENT USE FOR ALCOHOL-RELATED REASONS IN ONTARIO: A POPULATION-BASED COHORT STUDY**  
**November 2020**

**Abstract**

**Background:** Little is known about the risk of death among people who visit emergency departments frequently for alcohol-related reasons, including whether mortality risk increases with increasing frequency of visits. Our primary objective was to describe the sociodemographic and clinical characteristics of this high-risk population and examine their 1-year overall mortality, premature mortality and cause of death as a function of emergency department visit frequency in Ontario, Canada.

**Methods:** We conducted a population-based retrospective cohort study using linked health administrative data (Jan. 1, 2010, to Dec. 31, 2016) in Ontario for people aged 16–105 years who made at least 2 emergency department visits for mental or behavioural disorders due to alcohol within 1 year. We subdivided the cohort based on visit frequency (2, 3 or 4, or  $\geq 5$ ). The primary outcome was 1-year mortality, adjusted for age, sex, income, rural residence and presence of comorbidities. We examined premature mortality using years of potential life lost (YPLL).

**Results:** Of the 25 813 people included in the cohort, 17 020 (65.9%) had 2 emergency department visits within 1 year, 5704 (22.1%) had 3 or 4 visits, and 3089 (12.0%) had 5 or more visits. Males, people aged 45–64 years, and those living in urban centres and lower-income neighbourhoods were more likely to have 3 or 4 visits, or 5 or more visits. The all-cause 1-year mortality rate was 5.4% overall, ranging from 4.7% among patients with 2 visits to 8.8% among those with 5 or more visits. Death due to external causes (e.g., suicide, accidents) was most common. The adjusted mortality rate was 38% higher for patients with 5 or more visits than for those with 2 visits (adjusted hazard ratio 1.38, 95% confidence interval 1.19–1.59). Among 25 298 people aged 16–74 years, this represented 30 607 YPLL.

**Interpretation:** We observed a high mortality rate among relatively young, mostly urban, lower-income people with frequent emergency department visits for alcohol-related reasons. These visits are opportunities for intervention in a high-risk population to reduce a substantial mortality burden.

**Source:** Hulme, J., Sheikh, H., Xie, E., Gatov, E., Nagamuthu, C., & Kurdyak, P. (2020). Mortality among patients with frequent emergency department use for alcohol-related reasons in Ontario: A population-based cohort study. *Canadian Medical Association Journal*; 192(47) E1522-E153.  
<https://www.cmaj.ca/content/192/47/E1522>

**INCLUSION OF EVIDENCE-BASED BREAST CANCER CONTROL RECOMMENDATIONS AND GUIDELINES IN STATE COMPREHENSIVE CANCER CONTROL PLANS**  
**October 2020**

**Results**

Of the 51 CCC plans, 71% (n = 36) presented data on breast cancer incidence and 76% (n = 39) presented data on mortality. Most plans complied with the CDC data quality requirement by including information on the date and source of data. The placement of this information varied among plans: next to these data, in the text, in figures or tables, or at the end of the plan in the plan's list of references. A few plans referenced other reports rather than citing the primary data source and date. Although data on breast cancer incidence and mortality were commonly included in plans, 12 plans did not include these data. Two states and the District of Columbia presented data on the geographic distribution of breast cancer incidence and mortality across wards (in the District of Columbia) or counties. About half (n = 27) of the plans presented data on the prevalence of a timely mammography.

Components of SMART objectives were included infrequently for breast cancer incidence (2%; n = 1) and mortality (19%–23%; n = 10–12). When mammography objectives were presented, they usually referred to each SMART component; components least often mentioned were relevant data source (65%; n = 33) and time period specified (67%; n = 34). Nineteen plans discussed hereditary breast cancer; 14 discussed genetic screening for *BRCA 1/2* mutations. Three plans discussed chemoprevention for women at high risk of breast cancer, and 1 of these CCC plans specified high-risk breast cancer target populations. Uniformly, when chemoprevention was included, the CCC plans did not indicate breast cancer–specific SMART objectives.

Other breast cancer–specific prevention topics were covered to a varying extent in background information. Many plans provided data on these topics in their discussion of baseline rates, prevalence, or whether an objective was met or not in the background section. Five plans discussed breastfeeding as a primary prevention strategy, without any state-specific data.

Approximately 39% to 60% (n = 20–31) of plans covered 5 general cancer prevention topics that apply to breast cancer (alcohol intake, breastfeeding, diet/nutrition, healthy weight, and physical activity); fewer plans (n = 6–22) discussed the link between these factors and breast cancer. Alcohol intake was addressed in 11 plans; 10 states stated an alcohol-related objective. Specific SMART objectives on healthy weight, physical activity, and nutrition were included in 29 to 36 plans, most often presented with SMART objectives. In addition, a state's objective targets were presented in most plans, but only 3 plans described the methods for setting goal (target) amounts for their objectives, and of these 3 only 1 plan described methods for every general cancer prevention objective. Some plans used Healthy People 2020 targets or specified a percentage improvement.

**Source:** Soori, M., Platz, E.A., & Kanarek, N. (2020). Inclusion of evidence-based breast cancer control recommendations and guidelines in state comprehensive cancer control plans. *Preventing Chronic Disease*;17(10):e129.

[https://www.medscape.com/viewarticle/940336\\_1](https://www.medscape.com/viewarticle/940336_1)

**CHARACTERISTICS AND EFFECTIVENESS OF ALCOHOL WEBSITE AGE GATES PREVENTING UNDERAGE USER ACCESS**  
**October 2020**

**Abstract**

**Aims:** Examine and evaluate the overall effectiveness of age gates preventing access of underage users to alcohol websites.

**Methods:** Assess the characteristics of digital age gates among the top 25 alcohol brands among American adolescents, including type of age gate employed and resulting actions of repeated access requests indicating the user was under the legal drinking age.

**Results:** All official alcohol brand websites examined included an age gate, requiring either entering one's date of birth (DOB, 91%) or clicking a yes/no box indicating they were of legal drinking age (9%). Only one out of every five alcohol websites blocked futures attempts to gain access after entering a response indicating the user was under the legal drinking age. Users were allowed indefinite attempts to enter a DOB that was of legal drinking age, with the majority of websites subsequently granting access even after multiple underage entries.

**Conclusions:** Alcohol website visitors with minimal arithmetic abilities, such as very young youth, are able to employ 'trial and error' to eventually enter an acceptable legal drinking DOB and gain access. Alcohol brand age gates are weak, at best, and likely an inconsequential barrier that someone with limited math abilities can easily overcome.

**Source:** Barry, A.E., Primm, K., Russell, H., & Russell, A.M. (2020). Characteristics and effectiveness of alcohol website age gates preventing underage user access. *Alcohol and Alcoholism*, agaa090, <https://doi.org/10.1093/alcalc/agaa090>.