Editorial

"Less is better" is the best message when talking to patients about alcohol

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In January 2023, the Canadian Centre on Substance Use and Addiction (CCSA) published updated guidance on alcohol consumption and health.[1] They describe a continuum of health risk starting with consumption as low as 3 standard drinks per week (a standard drink in Canada contains 13 g of pure alcohol). This threshold is considerably lower than the 10 drinks a week for females and 15 drinks for males identified in their first report 12 years ago.[2] Furthermore, the CCSA guidance no longer provides different alcohol consumption thresholds by sex.

Clinicians and patients should take this new guidance seriously.

To estimate the effect of different levels of alcohol consumption on health, the authors of the CCSA report searched the literature thoroughly to identify systematic reviews that reported information on the dose–response relationship between alcohol consumption and mortality from specific diseases.[1] They used standard measures to select the 16 systematic reviews of highest quality for inclusion in their mathematical model. The authors chose years of life lost as their primary outcome measure and 1 in 1000 deaths as the threshold of concern. How does this stand up to scrutiny?

Alcohol is known to be an important risk factor for acute illnesses and injuries due to trauma and violence, chronic diseases like cirrhosis, mental health problems and impaired social functioning.[1,3] In Canada, more people are admitted to hospital for alcohol-related conditions than for heart attacks, and 10 people die in hospital every day from harms caused by alcohol.[4] Moreover, risks related to drinking and driving, consuming alcohol when pregnant or breastfeeding, and binge drinking are generally well understood.

The authors of the CCSA report assert that health risk starts to increase at 3 drinks per week based on their mathematical modelling,[5] the choice of years of life lost as the primary measure of harm[6] and the threshold used to determine harm.[6] Most of the systematic reviews included in the CCSA's model did not present granular data at low levels of consumption[5] and assessment of confounding by other risk factors such as smoking was not always clear; therefore, the estimates of the health risks at low levels of alcohol consumption (fewer than 7 drinks a week) are not as robust as the estimates for higher levels of consumption. Nonetheless, alcohol is a carcinogen[7] and even low levels of exposure to a carcinogen are likely to have adverse health effects, especially if a person has other risk factors for cancers caused by alcohol, such as cancers of the larynx, pharynx, esophagus, colon and breast. Given the well-documented health harms of alcohol at higher levels of consumption, it is prudent to employ the precautionary principle, which states that "complete evidence of a potential risk is not required before action is taken to mitigate the effects of the potential risk."[8]

The choice of risk threshold is an important driver for the CCSA report's recommendations. People are willing to accept a higher threshold for risks they assume themselves (e.g., smoking, certain physical activities like downhill skiing) than involuntary risks (e.g., health effects from environmental pollution).[9] A risk of 1 in 1000 deaths has been commonly used as the threshold for voluntary risks and 1 in 1 000 000 deaths has been used for involuntary risks.[6] However, most guidance on alcohol consumption has used an acceptable risk threshold of 1 in 100.[10] The decision by the authors of the CCSA report to use a threshold of 1 in 1000 greatly influenced the recommendation of 3 drinks per week as the threshold for adverse effects on health from alcohol consumption. We consider that this risk threshold is appropriate.

Although lower levels of alcohol consumption may have a protective effect for some diseases, such as ischemic heart disease,[5] people cannot selectively experience the potential benefits of low alcohol consumption while avoiding its carcinogenic effects. Therefore, the focus of the CCSA report on the overall health effects of alcohol, rather than on disease-specific effects, is also appropriate.

Above lower levels of alcohol consumption, the health risks of alcohol increase more steeply for females than males.[1] However, in the CCSA's mathematical modelling, the threshold at which health risks start to increase is the same for both sexes;[1] thus, it is sensible to provide similar guidance about consumption. This aligns with recent international guidance statements.[1]

Ultimately, clinicians should communicate to patients that alcohol consumption, even at low levels, has adverse effects on health; many patients are likely unaware of the carcinogenic

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effects of alcohol.[11] Patients who have alcohol-related diseases or risk factors for those diseases will benefit the most from a reduction in alcohol consumption. Patients who do not should be counselled that less alcohol is better in terms of overall health and encouraged to balance any benefits they may derive from alcohol consumption with its negative health effects.

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Competing interests: www.cmaj.ca/staff

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