

The risk of alcohol – what general practice can do

PETER ANDERSON*

ABSTRACT

Objective: To summarize, briefly, the risk of alcohol to health and what general practice can do to reduce the risk.

Methodology: Two key texts previously written by the author were reviewed, and main points highlighted of the risks important to general practice and of the evidence that general practice can make a difference in reducing the risks. The two texts were updated following a recent Cochrane meta-analysis of the impact of brief advice in reducing hazardous and harmful alcohol consumption.

Conclusions: Alcohol increases the risk of a wide range of neuropsychiatric, gastrointestinal, endocrine, metabolic, and pre-natal conditions, as will increasing the risk of cancers and diseases of the cardiovascular system and impairing the immune system. Brief advice is effective in reducing hazardous and harmful alcohol consumption, with longer counselling providing little additional benefit. Ideally, an early identification (using the first three questions of the alcohol use disorders identification test (AUDIT)) and brief advice programmes should be offered to all adults, but, to begin with, screening programmes could be targeted at middle age men with chronic illness. The brief advice should consist of giving feedback, providing information, enabling a goal to be set, giving advice, and providing encouragement.

Key words: Risk; Alcohol; Health; General Practice; Brief Advice; AUDIT.

THE RISK OF ALCOHOL

Alcohol is a toxic substance that is a cause of 60 or more different disorders with short and long term consequences.¹ For many conditions there is an increasing risk with increasing levels of alcohol consumption, with no evidence of a threshold effect, including, for example, cancer of the oral cavity, haemorrhagic stroke, hypertension, pancreatitis and cancer of the breast in women. The total amount of alcohol consumed over a lifetime intake increases the risk of harm. For example, there is a straight line relationship between the amount of alcohol consumed over a lifetime and a decreased volume of brain grey matter.² A consumption of 15-30 g

ethanol /day throughout life increases the risk of breast cancer in women by one third.³

Neuropsychiatric conditions

There is a linear relationship between alcohol consumption and symptoms of depression and anxiety, with increasing prevalence of symptoms with greater consumption. Alcohol-dependent individuals demonstrate a two- to three-fold increase in risk of depressive disorders, and there is evidence for a continuum in the magnitude of co-morbidity as a function of level of alcohol use. Alcohol consumption has both immediate and long-term effects on the brain and neuropsychological functioning. People drinking 70 to 84 grams of alcohol per day over an extended period of time show some cognitive inefficiencies; people drinking 98 to 126 grams of alcohol per day show mild cognitive deficits; and 140 grams or more per day results in moderate cognitive deficits similar to those found in people with diagnosed alcohol dependence.

Gastrointestinal conditions

Long term exposure of alcohol increases the risk of liver cirrhosis and acute and chronic pancreatitis. Although a strong correlation exists between the risk of cirrhosis, the product of daily consumed alcohol in grams and the time of alcohol consumption, only approximately 20% of people with alcohol dependence develop liver cirrhosis, and some studies point to the existence

*General Practitioner and
Consultant in Public Health
Girona, Spain

of genetic factors which predispose to alcoholic liver disease.

Endocrine and metabolic conditions

The relationship with type II diabetes appears to be U- or J-shaped, with low doses decreasing the risk compared with abstainers in both men and women and higher doses increasing the risk.

Cancers

Alcohol is a carcinogen and long term exposure increases the risk of cancers of the mouth, oesophagus (gullet), larynx (upper airway), liver and female breast, and to a lesser extent, cancers of the stomach, colon and rectum in a linear relationship, with no evidence of a threshold effect.

Cardiovascular diseases

The risk of coronary heart disease decreases to about 80% of the level of non-drinkers at 20 grams (two drinks) of alcohol per day, with most of the reduction in risk occurring by a consumption of one drink every second day. Episodic heavy drinking increases the risk of heart arrhythmias and sudden coronary death, even in people without any evidence of pre-existing heart disease. It has been estimated that in 15%-30% of patients with atrial fibrillation, the arrhythmia may be alcohol-related, with possibly 5%-10% of all new episodes of atrial fibrillation explained by excess alcohol use. High volume drinking occasions may precipitate myocardial ischaemia or infarction. Alcohol raises blood pressure and increases the risk of hypertension and haemorrhagic stroke in a dose dependent manner. There is a J-shaped relationship between alcohol consumption and risk of ischaemic stroke, with consumption levels of up to 24g a day reducing the risk, whereas consumption levels of 60 or more grams per day increasing the risk. Over a sustained period of time (five years or more), a high consumption

of alcohol (more than 90g a day) in a dose dependent manner can lead to cardiomyopathy, a disease of the heart muscle that leads to an enlarged heart and thinning of the heart muscle.

Immune system

Alcohol can interfere with the normal functions of various components of the immune system, and a high level of alcohol consumption can lead to immune deficiency, causing increased susceptibility to certain infectious diseases, including pneumonia, tuberculosis, and possibly HIV.

Pre-natal conditions

Alcohol shows reproductive toxicity. Prenatal exposure to alcohol can be associated with a distinctive pattern of intellectual deficits that become apparent later in childhood, including reductions in general intellectual functioning and academic skills as well as deficits in verbal learning, spatial memory and reasoning, reaction time, balance, and other cognitive and motor skills. Some deficits, like problems with social functioning, appear to worsen as these individuals reach adolescence and adulthood, possibly leading to an increased rate of mental health disorders. Although these deficits are most severe and have been documented most extensively in children with Foetal Alcohol Syndrome (FAS), children pre-natally exposed to lower levels of alcohol can exhibit similar problems.

WHAT GENERAL PRACTICE CAN DO

Primary health care involves the treatment of many common physical and mental and behavioural disorders, which the use of alcohol may precipitate or aggravate. The distinction between prevention and treatment as separate activities has to some extent disappeared, and brief treatments have emerged.

Screening and brief intervention (SBI) for alcohol consumption among patients in primary health care provides an opportunity to educate patients about the risks of hazardous and harmful alcohol use. Information about the amount and frequency of alcohol consumption may inform the diagnosis of the patient's presenting condition, and it may alert clinicians about possible reactions with medications and other aspects of their treatment. Central to SBI programmes is the potential for people who are not dependent on alcohol to reduce or stop their alcohol consumption with appropriate assistance and effort. Once dependence has developed, reducing or stopping alcohol consumption is more difficult.

A recent systematic review of the impact of brief advice in reducing hazardous and harmful alcohol consumption found 28 controlled trials from various countries, 23 of which were in general practice and five in an emergency setting.⁴ Participants drank an average of 320 grams (over 30 standard drinks) on entry to the trial. Over 7000 participants with a mean age of 42 years were randomized to receive a brief intervention or a control intervention, including assessment only. Brief interventions consistently reduced alcohol consumption with an average drop of four standard drinks per week. At one year's follow up (17 trials), people who had received the brief intervention drank less alcohol (a difference of 6 to 25 grams per week, mean 41 grams). The reduction in drinking was similar in the normal clinical setting as in a research setting with greater resources. Longer counselling had little additional benefit.

Some have suggested that screening and brief intervention may damage the doctor-patient relationship, particularly when questions about alcohol appear intrusive or are unrelated to health checks and possible alcohol-related problems. However, this does not seem

to be the case, since discussing alcohol with primary health care professionals is generally well-received by patients, the key to its acceptance is a skilful and sensitive handling of the issues, based on good consultation skills and the establishment of an appropriate rapport⁵ (Anderson et al 2005).

GPs are being asked to identify and offer help to the patient with hazardous alcohol consumption (a bit like the patient with asymptomatic raised blood pressure) and to the patient with harmful alcohol consumption (a bit like the smoking patient with COPD). Based on the current evidence, brief interventions should be offered to everyone at some point who attends general practice who is drinking at risky levels, not just to those for whom the subject of alcohol is raised in the context of their presentation, or those who appear, by some means, ready to discuss their alcohol consumption. This is not to say that everyone at every single attendance should be asked about their alcohol consumption, and to begin with, screening programmes could be targeted at middle aged men with chronic illness.

Although a wide range of screening instruments are available, one option to use is the first three alcohol consumption questions of the AUDIT that are as sensitive and specific as the full ten questions of the AUDIT.⁶ Screening can be quickly completed by inviting newly registered patients and those attending general health check ups to complete the questionnaire, which need only take 1-2 minutes. Once such a system is in place, it could be expanded to include opportunistic screening of all adult patients, involving receptionists handing out questionnaires.

Brief interventions that are of between 10-15 minutes duration and which give information and advice, encouragement to the patient to consider the positives and negatives of their drinking behaviour and support and help if the

patient decides they want to cut down on their drinking are effective.⁷ The framework for the brief advice can include: Giving Feedback that the patient's drinking falls into the hazardous drinking category, Providing Information on the specific risks of continued drinking at hazardous levels, Enabling a goal to be established by the patient to change drinking behaviour, Giving Advice on Limits to below 280g of alcohol or more per week for men and to below 140g of alcohol or more per week for women, and Providing Encouragement that hazardous drinkers are not dependent on alcohol and can change their drinking behaviour.

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Endereço para correspondência

Peteranderson.mail@gmail.com

RESUMO

Objetivo: Os problemas ligados ao álcool constituem um importante problema de Saúde Pública e neste texto faz-se uma descrição sumária dos riscos para a saúde do consumo de álcool e o que os cuidados de saúde primários e mais concretamente os clínicos gerais podem fazer no sentido de reduzir esse risco.

Metodologia: Dois textos chaves previamente escritos pelo autor foram revistos salientando estudos que demonstram como os clínicos gerais/médicos de família podem fazer a diferença na redução destes riscos para a saúde. Uma importante meta-análise (Cochrane) sobre o impacto das intervenções breves na redução do consumo de risco e nocivo confirmam a sua eficácia neste contexto.

Conclusões: O consumo de álcool aumenta o risco de várias situações nomeadamente neuropsiquiátricas, gastrointestinal, endócrino-metabólica e pré-natal, assim como aumenta o risco de neoplasias, doenças do sistema cardiovascular e do sistema imunológico. Idealmente uma identificação precoce (usando as três primeiras questões do questionário AUDIT) para a detecção dos consumidores excessivos, seguida de intervenções breves, leva a resultados que confirmam e demonstram a sua eficácia e eficiência nomeadamente no consumo de risco (hazardous) e consumo nocivo (harmful), ou seja, já com consequências físicas, psicológicas e sociais mas ainda sem critérios de dependência (classificação Organização Mundial de Saúde).

Palavras Chave: Risco; Álcool; Saúde; Clínico Geral; Médico de Família; Intervenções Breves; AUDIT.