Prevalence, identification and harms of alcohol use disorders

GRAHAM PARSONS

In the first of a two-part series on the management of alcohol use disorders (AUDs), this article discusses the prevalence of AUDs, the harms associated with alcohol misuse and how to identify and assess patients in the primary care setting.

Alcohol has a significant impact on the health of the population. In the UK there are over 10 million people drinking at levels that increase their risk of health harm. Among those aged 15 to 49 years in England, alcohol is now the leading risk factor for ill health, early mortality and disability and the fifth leading risk factor for ill health across all age groups.\(^1\)

In part one of this series of articles, I will examine the prevalence, harms and identification of alcohol use disorders (AUDs). Part two will cover the pharmacological management of AUDs but will also briefly review psychosocial elements of treatment, which remain an essential element before, during and after treatment of the AUD.

Prevalence of AUDs
Alcohol dependence affects 4% of people aged between 16 and 65 years in England (6% of men and 2% of women). Of these one million alcohol-dependent people, only 6% receive treatment in any one year.\(^2\) Over 24% of the English population (33% of men and 16% of women) consume alcohol in a way that is potentially or actually harmful to their health or well-being. Alcohol misuse is also an increasing problem in children and young people. Over 24,000 children and young people were treated in the NHS for alcohol-related problems in 2008 and 2009.\(^2\)

In 2016, there were 7327 alcohol-specific deaths in the UK with the highest rates in the 55- to 64-year age group. This rate remains unchanged since 2013 but is higher than that observed 15 years before (11.7 per 100,000 population in 2016 versus 10.6 per 100,000 population in 2001) and, for England, was significantly higher in the most deprived areas when compared to the least deprived areas.\(^3\)

Physical, mental and social harms associated with alcohol misuse
There are now over one million hospital admissions in the UK relating to alcohol each year, half of which occur in the lowest three socioeconomic deciles. Alcohol-related mortality has also increased, particularly for liver disease, which has seen a 400%
Alcohol use disorders are common, with physical co-morbidities such as gastrointestinal disorders (in particular liver disease) and neurological and cardiovascular disease being common. Many people experience long-term consequences that may significantly shorten their life.

In England, the average age at death of those dying from an alcohol-specific cause is 54.3 years while the average age of death from all causes is 77.6 years. More working years of life are lost in England as a result of alcohol-related deaths than from cancer of the lung, bronchus, trachea, colon, rectum, brain, pancreas, skin, ovary, kidney, stomach, bladder and prostate, combined.

Drinking alcohol increases the risk of seven types of cancer (mouth and throat, oesophageal, laryngeal, liver, female breast and colorectal cancer) with between 4% to 6% of all new cancers in the UK in 2013 caused by alcohol consumption. The International Agency for Research on Cancer (IARC) has classified alcohol as a group 1 carcinogen noting that even drinking small amounts increases the risk of some cancers. Yet only 12.9% of respondents in a 2016 survey were aware that alcohol increases the risk of cancer.

Co-morbid mental health disorders commonly include depression, anxiety disorders and drug misuse, some of which may remit with abstinence from alcohol but others may persist and need specific treatment. The physical and mental health effects of high-risk drinking are illustrated in Figure 1.

High-risk drinking may lead to social, legal, medical, domestic, job and financial problems. It may also cut your lifespan and lead to accidents and death from drink-driving.
suffering, poor quality of life or the emotional distress caused as a result of living with a heavy drinker. The spectrum of harm ranges from relatively mild, such as drinkers loitering near residential streets, through to those that are severe, including lifelong disability or death. Many of these harms impact upon other people, including relationship partners, children, relatives, friends, co-workers and strangers.1

The 2016 UK Chief Medical Officers’ (CMO) low-risk drinking guidelines summarise the evidence for the heart health benefits of small amounts of alcohol to the general population, concluding that these are limited.6 The CMO states that “the net benefits from small amounts of alcohol are less than previously thought (with substantial uncertainties around the level of protection) and are significant in only a limited part of the population. That is women over the age of 55, for whom the maximum benefit is gained when drinking around five units a week, with some beneficial effect up to around 14 units a week”. Patients should therefore be advised that there are more effective methods of improving heart health such as exercise and should be discouraged from using alcohol as a positive intervention.

<table>
<thead>
<tr>
<th>Category</th>
<th>AUDIT (AUDIT-C) score</th>
<th>Classification and intervention required</th>
</tr>
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<tbody>
<tr>
<td>Zone I</td>
<td>0–7 (1–4)</td>
<td>Lower risk drinking or abstinence Brief alcohol education and positive affirmation required</td>
</tr>
<tr>
<td>Zone II</td>
<td>8–15 (5–7)</td>
<td>Hazardous (increasing) risk drinking A brief intervention using simple advice and service user education materials are recommended</td>
</tr>
<tr>
<td>Zone III</td>
<td>16–20 (8–10)</td>
<td>Harmful (higher) risk drinking This can be managed by a combination of simple advice, brief counselling and continued monitoring. Further diagnostic evaluation is also indicated if the service user fails to respond or is suspected of possible alcohol dependence</td>
</tr>
<tr>
<td>Zone IV</td>
<td>20–40 (11–12)</td>
<td>Possible dependence This should result in a comprehensive assessment of the multiple areas of need within a clinical interview using relevant and validated tools. Treatment for alcohol dependence may be indicated</td>
</tr>
</tbody>
</table>

Table 1. The Alcohol Use Disorders Identification Tool (AUDIT) classification of alcohol risk

Wernicke-Korsakoff syndrome

Wernicke-Korsakoff syndrome is now considered to be a unitary disorder comprising of the acute condition Wernicke’s encephalopathy, which proceeds in a proportion of cases to the chronic condition Korsakoff syndrome.2 Wernicke’s encephalopathy is a medical emergency and can lead to irreversible brain damage and memory loss if not treated. Research suggests that 17–20% who develop Wernicke’s encephalopathy die and 85% of survivors go on to develop Korsakoff syndrome.6 A presumptive diagnosis of Wernicke’s encephalopathy should be made for any patient with a history of alcohol dependence who shows one or more of the following:2

- Evidence of ophthalmoplegia
- Ataxia
- Acute confusion
- Memory disturbance
- Unexplained hypotension
- Hypothermia
- Unconsciousness
- Coma.

A high index of suspicion must always be maintained at all times regarding Wernicke’s encephalopathy since it rarely presents with all signs and symptoms, and the consequences of untreated Wernicke’s encephalopathy are significant. Prophylactic treatment is with thiamine (oral or intramuscular) while treatment for Wernicke’s encephalopathy requires intramuscular or intravenous thiamine. These treatments will be covered in part two of this series of articles.

Korsakoff syndrome is characterised by a memory disorder, occurring in clear consciousness, such that the patient appears to be entirely in possession of their faculties. Nevertheless, a severe impairment of current or recent memory is present and the patient often repeatedly asks the same question and fails to recognise people they have not met since the onset of their illness. Korsakoff syndrome mainly affects the consolidation of recent memory traces more than remote memories, which are often filled by ‘false memories’ or confabulations. These confabulations often represent real memories jumbled up and recalled out of temporal sequence. Approximately 25% of people with Korsakoff syndrome will require long-term institutionalisation.3

Defining, categorising and screening for AUDs

AUDs are defined and categorised according to the Alcohol Use Disorders Identification Tool (AUDIT). Produced by the WHO as an evidence-based screening tool, AUDIT allows categorisation of the level of risk associated with alcohol use.5 AUDIT defines alcohol risk into four categories, which are summarised in Table 1. The AUDIT tool remains the gold standard for identifying AUDs and is recommended by NICE for identification and for routine outcome measures.2 The shorter AUDIT-C tool uses the first three questions of the full AUDIT tool. Although its sensitivity and specificity is lower than AUDIT, it provides a practitioner with a quick assessment tool that is easy to administer and starts the conversation about alcohol use.

The severity of alcohol dependence may also be subcategorised into mild, moderate and severe using the Severity of Alcohol Dependence Questionnaire (SADQ). This assessment is important as it also indicates the treatment interventions
Alcohol use disorders

Assessing a patient with an AUD in the primary care setting

All patients presenting in primary care should be screened routinely for AUD. This can be done initially using the three-question AUDIT-C tool. Patients scoring 5 or more on AUDIT-C should be further screened using the full AUDIT tool to assess the degree of the AUD and determine appropriate interventions.

Patients scoring 20 or more on AUDIT should be referred to the local specialist alcohol treatment service if they are motivated to engage in treatment. Prior to this, the SADQ tool can be used to assess the severity of the alcohol dependency, which will support appropriate triage by the specialist service. Some local specialist alcohol services may have a pro forma for referral from primary care but if a standard template is unavailable, the following details should be provided to the specialist service as part of the referral process for an alcohol detoxification:

- Alcohol use – current level of consumption, historical and recent patterns of drinking (a drink diary may be useful for this purpose) and, if possible, additional supporting information regarding drinking from a family member or carer
- Assessment of the level of dependence using the SADQ tool
- Other drug use (licit and illicit)
- Recent blood tests (if available) including full blood count (FBC), liver function tests (LFTs), gamma-glutamyl transferase (GGT), clotting screens, urea and electrolytes (U&Es) and blood-borne virus (BBV) screening (if there is a history of drug misuse or other risk factors for BBVs)

Table 2. Harm reduction advice that should be provided to patients at risk from alcohol use disorders

required. For example, a score of 30 or more (severe dependence) on the SADQ tool indicates that alcohol detoxification treatment should ordinarily be employed in an inpatient or residential setting. We will explore the management options in different treatment settings in part two of this series of articles.

Low-risk guidelines are the SAME for men and women. BOTH are advised not to regularly drink more than 14 units a week.

This is what 14 units looks like:

Table 2 outlines harm reduction advice that can be provided to patients at risk from AUDs who are not ready to engage in specialist treatment and Figure 2 summarises the UK CMO guidelines on alcohol consumption.

Figure 2. Summary of the UK Chief Medical Officers’ 2016 low-risk drinking guidelines

• Physical health problems
• Psychological and social problems
• Cognitive functioning using a validated tool such as the Mini-Mental State Examination (MMSE)
• Readiness and belief in ability to change.

Patients who are not ready to engage in treatment should be given harm-reduction advice. On all occasions, patients should be warned about the risks of stopping alcohol suddenly and advised not to do so due to the significant risks associated with this, including the onset of delirium tremens, which will be covered in part two of this series. Table 2 outlines harm reduction advice that can be provided to patients at risk from AUDs who are not ready to engage in specialist treatment and Figure 2 summarises the UK CMO guidelines on alcohol consumption.
Summary
Alcohol has a significant impact on the individual and society as a whole. Primary care practitioners have a vital role in screening and educating patients on this risk, which is not limited to alcohol dependence, using validated tools and responding appropriately. Specialist alcohol service providers should support primary care practitioners in this role, especially for patients with alcohol dependence, in whom a comprehensive treatment programme that incorporates pharmacological and psychosocial elements is an essential component of the treatment plan.

References

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