



Barbara Hunter
Dan I Lubman

Substance misuse

Management in the older population

Background

The proportion of Australians aged over 65 years is increasing. Although screening and treatment for alcohol and drug issues has traditionally focused on those aged less than 65 years, there is growing evidence of alcohol and drug related harm among older people.

Objective

This article broadly discusses our current understanding of alcohol and drug problems among people aged over 65 years, as well as recommended approaches to this issue within primary care.

Discussion

Current prevalence estimates are likely to underestimate the number of older people with alcohol and drug misuse. Further, only a small number of older people seek specialist treatment for alcohol or drug problems, despite documented harms. Enhanced screening and assessment practices in primary healthcare settings are critical for improving health outcomes for older people with substance use disorders.

Keywords: elderly; alcohol; drugs; screening; brief intervention



Population surveys, both nationally and internationally, indicate that alcohol and prescription medications are more likely to be misused by older people than illicit drugs.¹⁻³ Recently the authors analysed data from the 2007 Australian National Drug Strategy Household Survey¹ to determine rates of alcohol and other drug use in older Victorians (aged >65 years). Similar to other age groups within the community, tobacco and alcohol were the main drugs associated with serious harm in people aged over 65 years (consumed daily by 8% and 15% of older people, respectively) (*Table 1*). Prescription drug misuse was also a concern, with 3% reporting that they took opioid or nonopioid analgesics for nonmedical purposes. Furthermore, 5% of people aged over 65 years were estimated to be at risk of short term alcohol related harm (ie. at risk of injury or accidents occurring immediately after drinking).⁴

While people aged over 65 years tend to describe fewer drugs of concern than younger people, estimates suggest that 25% of older people are consuming up to five different prescribed medications concomitantly.⁵ This is concerning, as many medications (including those used for diabetes, arthritis or cardiovascular conditions) may interact with alcohol, benzodiazepines, and other psychoactive substances, increasing the risk of potential harm.

What are the harms?

Impact on physical and mental health

There are a broad range of factors, such as physical illness and higher rates of injuries following falls that put older people at greater risk of alcohol and drug related harm⁶⁻⁷ (*Table 2*). People who develop alcohol problems earlier in life have a higher likelihood of psychiatric and medical comorbidity in old age, and are also likely to continue drinking at risky levels.⁸ Heavy alcohol consumption (five or more drinks daily) may quadruple the risk of developing functional impairment, and is a risk factor for osteoporosis and dementia.^{9,10}

Alcohol withdrawal has been linked with depression in elderly patients,⁹ while depression and cognitive impairment are risk factors for a relapse to drinking as well as potential triggers for



suicide.⁹ In Australia, common causes of death due to risky/high risk drinking include alcoholic liver cirrhosis and haemorrhagic stroke.¹¹ Falls, supraventricular cardiac arrhythmias, alcohol dependence and alcoholic liver cirrhosis are the most common reasons for hospitalisation related to risky/high risk drinking among people aged over 65 years.^{12–14} Alcohol related falls are also more common in older people.

Impact of drug interactions

As the body ages, its metabolism and clearance slow, making it more vulnerable to adverse drug interactions.⁸ Alcohol can interfere with the metabolism of many medications and has been highlighted as a leading risk factor for the development of adverse drug reactions.¹⁵ In addition, the use of alcohol in combination with drugs such as benzodiazepines can lead to sedation, confusion, falls, and delirium.¹⁵ While older people are more likely to be taking multiple medications than other age groups,¹⁶ many older people who are prescribed such medications continue to drink, thereby increasing the likelihood of potential harms.²

Is the problem being identified?

There is little available data regarding screening and identification practices within Australian general practice. However, preliminary findings from a recent study we conducted in Victoria suggest that health professionals from a range of primary healthcare settings identify very few older people with substance use disorders. Why might this be happening? Research from overseas suggests that practitioners may mistake symptoms of alcohol related harm for other health problems common in old age (eg. falls, infections, digestive problems, depression, anxiety or other psychiatric disorders).^{2,17} Practitioners are also likely to prioritise other presenting health concerns, and may have insufficient time to explore alcohol and drug issues in a standard consultation.¹⁸ However, specific difficulties associated with screening for alcohol problems among older people have been identified (see below).¹⁹ Indeed, our own research suggests that primary healthcare professionals often do not know how to assess for alcohol and drug issues among older people, nor what to do when a problem is identified.

Differences in patient role and responsibilities are a further factor that may influence identification of alcohol and drug issues in older people. Retirement and more limited family or other commitments means the social impact of substance misuse may be less evident in older people, while increased time for socialisation creates more opportunities for excessive drinking.

Finally, levels of alcohol or drug consumption recommended as safe for younger people may be harmful for older people because of the increased vulnerability of the aging body to alcohol and drugs, as well as higher rates of morbidity and adverse drug interactions with prescribed medications.^{20,21} As a consequence, problematic use may go undiagnosed using existing screening tools.

Table 1. Australian stats that matter¹

- 15% of older people consume alcohol daily
- 8% of older people use tobacco daily
- 3% of older people use pain killers or nonopioid analgesics for nonmedical purposes
- 5% of older people are at risk of short term alcohol related harm

Table 2. Problems associated with alcohol misuse in older people

- Chronic heart disease, hypertension, diabetes and stroke^{4,11,16}
- Pancreatitis and liver damage^{4,11,16,33}
- Acquired brain injury^{4,11,33}
- Nutritional malabsorption and osteoporosis^{4,6,10,11}
- Incontinence and gastrointestinal problems^{4,11}
- Self neglect, such as poor nutrition and hygiene^{4,9}
- Sleep problems or chronic pain^{4,6,11,33}
- Memory loss and the development of dementia^{4,6,11}
- Falls and accidents^{4,11–14}
- Delirium tremens¹¹
- Psychiatric problems such as depression, phobias and anxiety^{4,11}
- Risk of suicide^{4,11}

If an older person presents with any of these problems, you should ask them about their alcohol and drug use

How should we deal with the issue in primary care?

For GPs, it is important to be aware of the possibility of substance misuse in older people, particularly alcohol, and to highlight the potential contraindications of drinking alcohol when taking over-the-counter or prescription medications (*Table 3*). Practitioners should consider including questions about alcohol and drugs in discussions of general health and overall wellbeing, as this is likely to enhance open communication in a nonthreatening manner. While we currently know little about prescription drug misuse in older people, our analysis of National Drug Strategy Household Survey data highlights that this may be a potential issue for older people. General practitioners should therefore enquire about the potential misuse of such drugs, particularly among those on long term analgesics or psychotropic agents.

While screening for alcohol and drug issues is an important strategy within primary care settings, and is likely to capture those who are engaging in problematic use,^{20,22} common screening tools for alcohol and/or other drugs, such as the World Health Organization Alcohol Use Disorders Identification Test (AUDIT) and the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), have not been validated in older populations. Indeed, such tools may not be appropriate for use with older people as they do not take into account

**Table 3. When to ask the question about alcohol or drug use**

- At a first consultation
- After a fall
- When starting a new medication
- At a regular (6 monthly) medication review
- When presenting with:
 - depression, anxiety or insomnia
 - heart, liver or kidney complaints
 - gastrointestinal problems
 - memory difficulties
 - nutritional deficiencies

the complex health issues unique to older people that further increase the risks of alcohol or drug related harm (such as use of multiple medications and age related health concerns).^{7,8,23–25} As such, GPs should not only assess for quantity and frequency of use, but also how this level of use may interact with existing health conditions and medications.

Of the small number of screening tools developed for use with older people, the Alcohol Related Problems Survey (ARPS) appears to provide the best indication of problematic alcohol use in this age group.^{7,8,23–25} It includes questions on consumption (drawing from the AUDIT), presence of medical and psychiatric conditions and physical functioning,¹⁹ and identifies interactions between alcohol, disease and medications.²⁶ Questions also address significant loss, social mobility and isolation. One of the key benefits of this tool is that it can be completed by patients in the waiting room, before consultation, and can be scored using the computerised version of the tool, with results available to the GP at the commencement of the consultation. This facilitates the provision of personalised reports and targeted education to reduce individual alcohol related risks and problems.²⁷ An additional benefit of the tool is that it provides a detailed overview of a range of physical and mental health conditions.²³ A project is currently underway to recalibrate ARPS to Australian standard drinks in order to make it more user friendly for Australian GPs. As yet, there are no specific tools developed to screen for misuse of pharmaceutical or illicit drugs in older people.

Brief interventions, delivered as part of a screening process, are effective for people with less severe alcohol problems^{28,29} and also motivate those with more severe alcohol problems to seek specialised treatment.^{2,30} Screening also seems to play a role in reducing alcohol consumption among older people and can act as an impetus for change.²⁸ An effective way to deliver a brief intervention is to follow the FRAMES approach:³¹

- **Feedback** to the patient the risks associated with their alcohol or drug use
- Place an emphasis on the patient's **Responsibility** and choice to reduce their use
- Provide explicit **Advice** to the patient about changing their alcohol or drug use

- Provide the patient with a **Menu** of change strategies
- Deliver this advice using an **Empathic**, warm and reflective approach
- Reinforce and support the patient's **Self efficacy**.

Some older people may misuse alcohol or prescription medications to cope with mental health concerns or social isolation,³² and as such it is important that GPs conduct a thorough mental health assessment if indicated. Referral to specialist alcohol or other drug treatment services may be required for older people with significant alcohol and drug issues, although review by an addiction medicine specialist is essential if the patient has significant physical health problems or is taking multiple medications.

Summary of important points

- Although alcohol and drug problems are commonly associated with young people, there is growing evidence of alcohol and drug related harm among people aged over 65 years.
- Current screening practices may not be sufficient to identify problematic alcohol or drug use in older people.
- Questions about alcohol and drug use should be asked in conjunction with enquiries about current medications (including over-the-counter pharmaceuticals), medical and psychiatric conditions, physical functioning and social wellbeing.
- Brief interventions are effective in reducing alcohol use among older people.

Resources

- The Florida BRITE program was developed specifically to identify risky alcohol or drug consumption. A range of tools and resources can be found at <http://brite.fmhi.usf.edu>
- The ARPS tool was developed by Arlene Fink and colleagues. It cannot be reproduced without permission from the authors. For a copy of the ARPS or CARPS tool contact AFink@mednet.ucla.edu.

Authors

Barbara Hunter BA(Hons), PhD, is Senior Research Fellow, Turning Point Alcohol and Drug Centre, Eastern Health and Monash University, Melbourne, Victoria

Dan I Lubman BSc(Hons), MBChB, PhD, FRANZCP, FACHAM, is Director and Professor of Addiction Studies, Turning Point Alcohol and Drug Centre, Eastern Health and Monash University, Melbourne, Victoria. danl@turningpoint.org.au.

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References

1. Australian Institute of Health and Welfare. National Drug Strategy Household Survey. Canberra: AIHW, 2007.
2. Aira M, Hartikainen S, Sulkava R. Community prevalence of alcohol use and concomitant use of medication – a source of possible risk in the elderly aged 75 and older? *Int J Geriatr Psychiatry* 2005;20:680–5.
3. Blazer D, Wu L. The epidemiology of at-risk and binge drinking among middle-aged and elderly community adults: National Survey On Drug Use And



- Health. *Am J Psychiatry* 2009;166:1162–9.
4. National Health and Medical Research Council. Australian guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC, 2009.
 5. Australian Institute of Health and Welfare. Older Australians in hospital. Canberra: AIHW, 2007.
 6. Health Canada. Best practices treatment and rehabilitation for seniors with substance use problems. Ottawa: Health Canada, 2002.
 7. Fink A, Morton S, Beck J, et al. The Alcohol-Related Problems Survey: identifying hazardous and harmful drinking in older primary care patients. *J Am Geriatr Soc* 2002;50:1717–22.
 8. Sorrocco KH, Ferrell SW. Alcohol use among older adults. *J Gen Psychol* 2006;133:453–67.
 9. Whelan G. Alcohol: a much neglected risk factor in elderly mental disorders. *Curr Opin Psychiatry* 2003;16:609–14.
 10. Hannan MT, Felson DT, Hughes BD, et al. Risk factors for longitudinal bone loss in elderly men and women: The Framingham osteoporosis study. *J Bone Miner Res* 2000;15:710–20.
 11. National Drug Research Institute. National alcohol indicators. Bulletin 12. Trends in estimated alcohol-attributable deaths and hospitalisations in Australia, 1996–2005. NDRI, 2009;(12).
 12. National Drug Research Institute. National alcohol indicators. Bulletin 8. Trends in alcohol consumption and related harms for Australians aged 65–74 years (the 'young-old'), 1990–2003. NDRI, 2005;(8).
 13. National Drug Research Institute. National alcohol indicators. Bulletin 9. Trends in alcohol consumption and related harms for Australians aged 75–84 years (the 'older-old'), 1990–2003. NDRI, 2005;(9).
 14. National Drug Research Institute. National alcohol indicators. Bulletin 10. Trends in alcohol consumption and related harms for Australians aged 85 years and older (the 'old-old'), 1990–2003. NDRI, 2005;(10).
 15. Blow FC, Bartels SJ. Evidence-based practices for preventing substance abuse and mental health problems in older adults: for the Older Americans Substance Abuse and Mental Health Technical Assistance Centre, 2005.
 16. Australian Institute of Health and Welfare. Older Australia at a glance. Canberra: AIHW, 2007.
 17. Arndt S, Schultz SK, Turvey C, Petersen A. (2002). Screening for alcoholism in the primary care setting – are we talking to the right people? *J Fam Pract* 2002;51:41–6.
 18. Anderson P, Kaner E, Wutzke S, et al. Attitudes and managing alcohol problems in general practice: an interaction analysis based on findings from a WHO collaborative study. *Alcohol & Alcoholism* 2004;39:351–6.
 19. Dupree LW, Schonfeld L. A relapse prevention model for older alcohol abusers. In: Gallagher-Thompson DS, Thompson, LW, editors. Handbook of behavioural and cognitive therapies with older adults. New York, NY: Springer Science + Business Media, 2008, pp. 61–75.
 20. Lang I, Guralnik J, Wallace RB, Melzer D. (2007). What level of alcohol consumption is hazardous for older people? Functioning and mortality in US and English national cohorts. *J Am Geriatr Soc* 2007;55:49–57.
 21. National Health and Medical Research Council. Australian guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC, 2009.
 22. Whitlock EP, Polen MR, Green CA, Orleans T, Klein J. Behavioural counselling interventions in primary care to reduce risk/harmful alcohol use by adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med* 2004;140:557–68.
 23. Fink A, Tsai M, Hays R, et al. Comparing the Alcohol-Related Problems Survey (ARPS) to traditional alcohol screening measures in elderly outpatients. *Arch Gerontol Geriatr* 2002;34:55–78.
 24. Nguyen K, Fink A, Beck JC, Higa J. Feasibility of using an alcohol screening and health education system with older primary care patients. *J Am Board Fam Pract* 2001;14:7–14.
 25. Beullens J, Aertgeerts B. Screening for alcohol abuse and dependence in older people using DSM criteria: a review. *Aging Ment Health* 2004;8:76–82.
 26. Culbertson JW. Alcohol use in the elderly: beyond the CAGE part 2: screening instruments and treatment strategies. *Geriatrics* 2006;61:20–6.
 27. Fink A, Elliott MN, Tsai MC, Beck JC. An evaluation of an intervention to assist primary care physicians in screening and educating older patients who use alcohol. *J Am Geriatr Soc* 2005;53:1937–43.
 28. Kaner EF, Dickinson HO, Beyer F, et al. The effectiveness of brief alcohol interventions in primary care settings: a systematic review. *Drug Alcohol Rev* 2009;28:301–23.
 29. Niilen P, Kaner E, Babor TF. Brief intervention, three decades on: an overview of research findings and strategies for more widespread implementation. *Nordic Studies on Alcohol and Drugs* 2008;25:453–67.
 30. Rochat S, Wietlisbach V, Burnand B, Landry U, Yersin B. Success of referral for alcohol dependent patients from a general hospital: predictive value of patient and process characteristics. *Subst Abuse* 2004;25:9–15.
 31. Shand F, Gates J, Fawcett J, Mattick R. The treatment of alcohol problems: a review of the evidence. National Drug and Alcohol Research Centre, 2003.
 32. Aira M, Hartikainen S, Sulkava R. Drinking alcohol for medicinal purposes by people aged over 75: a community-based interview study. *Fam Pract* 2008;25:445–9.
 33. Rota-Bartelink AM, Lipmann B. Causes of homelessness among older people in Melbourne, Australia. *Aust N Z J Public Health* 2007;31:252–8.

correspondence afp@racgp.org.au