Problematic substance use in older adults: a rapid literature scan

Dan Paech
Adele Weston
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The review of the evidence will ultimately be used by the Population Health Directorate to inform policy decision making in conjunction with other information. The content of the review alone does not constitute clinical advice or policy recommendations.

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**Contact Details**

Health Services Assessment Collaboration (HSAC)
Health Sciences Centre
University of Canterbury
Private Bag 4800
Christchurch 8140
New Zealand
Tel: +64 3 345 8147  Fax: +64 3 345 8191

Email: hsac@canterbury.ac.nz
Web Site: www.healthsac.net
Executive Summary

Introduction

The purpose of this project was to identify practical resources for service providers who work with older adults in residential aged care with historical or current substance use problems. This report provides a brief scan of the literature available on this topic. It was commissioned by the New Zealand Ministry of Health.

Methods

A non-systematic method of literature searching and study selection was employed in the preparation of this report. The search included a review of relevant published and unpublished reports, clinical practice guidelines, systematic reviews, journal publications and an examination of specific substance use issues and data. The aim was to help identify resources for health professionals dealing with problematic substance use in older adults. It is important to note that as this was a brief scan of the evidence and not a full systematic review, detailed quality appraisal, data extraction and interpretation of the identified literature was not performed.

Key results

The search strategy identified a number of citations from a wide variety of sources. One pivotal report was identified from Canada’s Federal Department of Health titled ‘Best Practices: treatment and rehabilitation for older persons with substance use problems’ (2002). Many of the issues discussed in this rapid literature scan are described in more detail within the Canadian report. A number of journal articles were found relating to substance abuse in older adults; however, few were in the context of residential aged care.

For those with substance use problems, alcohol is the substance most commonly used. Potential screening tools for alcohol misuse include the MAST-G, AUDIT and CAGE. These instruments are relatively easy to understand and administer. Prescription and non-prescription medication misuse is also common amongst older adults. In terms of treatment issues and approaches, it is important to implement age-specific interventions, and service providers should educate patients on the harmful consequences of substance abuse in terms of adverse effects on physical and mental health. There are numerous types of interventions available but programs should always adopt a client-centred treatment approach that addresses any underlying issues that may be contributing to problematic substance use.

No information was found pertaining to potential differences in the identification and treatment of substance misuse in indigenous populations. Whether or not the interventions identified in this report can be applied to Maori and Pacific Island people remains an area of uncertainty.
Conclusions

For older adults in residential aged care, alcohol and prescription medication misuse are the most likely substance use problems to occur. Symptoms of problematic substance use can be difficult to detect because of co-morbid conditions and therefore health professionals and the general public need increased education and awareness on substance misuse in this population. Age-specific interventions are beneficial, with emphasis on creating social support, and addressing underlying issues associated with problematic substance use.
### Table of Contents

**Review Team** ........................................................................................................ i
**Acknowledgements** .............................................................................................. i
**Copyright Statement & Disclaimer** ........................................................................ i
**Contact Details** ....................................................................................................... ii
**Executive Summary** ............................................................................................... iii
  - Introduction ........................................................................................................... iii
  - Methods ................................................................................................................. iii
  - Key results ........................................................................................................... iii
  - Conclusions .......................................................................................................... iv

**Table of Contents** .................................................................................................. v
**List of Tables** .......................................................................................................... vi
**List of Figures** ......................................................................................................... vii
**List of Abbreviations and Acronyms** ...................................................................... viii

**Introduction** ......................................................................................................... 1

**Methods** ................................................................................................................ 3
  - Literature search .................................................................................................. 3
  - Structure of report ............................................................................................... 3

**Results** .................................................................................................................. 5
  - Psychiatric problems associated with substance misuse ...................................... 5
  - Identification of problematic substance use ........................................................ 6
  - Diagnostic criteria ................................................................................................ 14
  - Clinical management and treatment options ....................................................... 14
  - Barriers to treatment ........................................................................................... 21

**Limitations** ............................................................................................................. 23

**Summary and Conclusions** .................................................................................... 25

**References** ............................................................................................................. 27

**Appendix A:** Full list of identified citations ............................................................ 33
**Appendix B:** Classification of alcohol related dementia ........................................... 43
List of Tables

Table 1: Characteristics of selected assessment instruments used to screen and diagnose alcohol use disorders in older adults..............................8
Table 2: CAGE screening questionnaire.................................................................9
Table 3: Short Michigan Alcoholism Screening Test - Geriatric Version (S-MAST-G)..................................................................................................10
Table 4: Applying DSM-IV diagnostic criteria for substance abuse or dependence to older adults.................................................................14
Table 5: Brief intervention steps for problem drinkers...........................................18
Table 6: BRENDA psychosocial treatment model .............................................19
List of Figures

Figure 1: The AUDIT Questionnaire ................................................................. 11
Figure 2: Treatment planning summary for older adults with alcohol use disorders................................................................................. 16
## List of Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD</td>
<td>Alcohol Use Disorder</td>
</tr>
<tr>
<td>AUDIT</td>
<td>Alcohol use disorders identification test</td>
</tr>
<tr>
<td>BONS</td>
<td>Blackouts, objections, neglect of responsibilities, shakes</td>
</tr>
<tr>
<td>BRENSDA</td>
<td>Biopsychosocial, report, empathetic, needs, direct, assessment</td>
</tr>
<tr>
<td>CAGE</td>
<td>Cut down, annoyed, guilty, eye-opener</td>
</tr>
<tr>
<td>DSM-IV</td>
<td>Diagnostic and statistical manual-4th edition</td>
</tr>
<tr>
<td>GABA</td>
<td>Gamma-aminobutyric acid</td>
</tr>
<tr>
<td>ICD-10</td>
<td>International classification of diseases, 10th edition</td>
</tr>
<tr>
<td>LDH</td>
<td>Lifetime drinking history</td>
</tr>
<tr>
<td>MAST</td>
<td>Michigan alcohol screening test</td>
</tr>
<tr>
<td>MAST-G</td>
<td>Michigan alcohol screening test-geriatric</td>
</tr>
<tr>
<td>NMDA</td>
<td>N-methyl-D-aspartic acid</td>
</tr>
<tr>
<td>OTC</td>
<td>Over-the-counter</td>
</tr>
<tr>
<td>ROC</td>
<td>Receiver operator curve</td>
</tr>
<tr>
<td>SAAST</td>
<td>Self-Administered alcoholism screening test</td>
</tr>
<tr>
<td>SCID</td>
<td>Structural clinical interview for DSM-III-R</td>
</tr>
<tr>
<td>S-MAST-G</td>
<td>Short-Michigan alcohol screening test-geriatric</td>
</tr>
<tr>
<td>SUDDS</td>
<td>Substance use disorders diagnostic schedule</td>
</tr>
<tr>
<td>TQDH</td>
<td>Ten question drinking history</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
Introduction

Problematic substance use has a large impact on health outcomes, increasing the risk of cognitive impairment and other physical and mental disorders (Oslin, 2005). It is also associated with higher health care utilisation, increased complexity of the course and prognosis of many mental and physical illnesses, increased disability and impairment, compromised quality of life, increased caregiver stress, increased mortality, and higher risk of suicide (Bartels SJ, Blow FC, Brockmann LM, & Van Citters AD, 2005).

The prevalence of substance misuse is greatly underestimated in older adults, despite the more serious physical problems created by incorrect prescription drug use, illicit drug use, or the consumption of a moderate amount of alcohol in this age group (Dawe S, Loxton NJ, Hides L, Kavanagh D, & Mattick R, 2002). The underestimation of substance problems in this population may be due to a number of factors. Some researchers speculate that there is a health care system ‘myth’ that few people over the age of 45 years abuse drugs or alcohol (DeHart SS & Hoffmann NG, 1997). Other reasons purported for under diagnosis are that symptoms of substance abuse often mimic or are masked by other age-specific conditions, such as dementia, and because of reluctance on the part of older adults to be open about problems (DeHart SS et al., 1997; Health Canada, 2002). Nevertheless, according to some studies, a substantial and growing percentage of older adults misuse alcohol, prescription drugs, or other substances (Bartels SJ et al., 2005).

In New Zealand, 87% of the population aged between 14 and 65 years reported they had consumed alcohol in the last 12 months, with the average frequency about four times per week for men and two to three times per week for women (New Zealand Health Information Service, 2001). The average daily volume of alcohol consumed is similar between Maori and non-Maori individuals, however non-Maori have been reported to drink more frequently, and Maori to consume 40% more in a usual drinking occasion (Bramley D, Broad J, Harris R, Reid P, & Jackson R, 2003). Similar to other developed nations, New Zealand has an ageing population with the 65 years plus age group projected to make up one-quarter of New Zealand’s population from the late 2030s, compared with 12 percent in 2005 (New Zealand Health Information Service, 2001; Statistics New Zealand, 2006). With a rapidly growing proportion of older adults who grew up during an era of increased illicit drug and alcohol use, there is reason to believe that there will be a greater impact of problematic substance use or dependence in the next generation of older adults (Oslin, 2004).

Alcohol abuse and dependence in older people are often not detected in medical practice. In a study of three Australian hospitals, only 33% of older problem drinkers were identified by the medical staff caring for them (McInnes & Powell, 1994a). However, the early detection of alcohol problems is extremely important, since there are as many hospitalisations for alcohol-related conditions as there are for myocardial infarctions, in those over 65 years of age (DeHart SS et al., 1997). In men 65–75 years old, light and moderate drinkers have an increased risk of stroke and heavy drinkers of malignant neoplasms (Goldberg, Burchfiel, Reed, Wergowske, & Chiu, 1994). Alcohol abuse and dependence also increases mental health problems associated with old age. Men aged 65 years and over with a history of heavy drinking for five years or
more at some time in their lives, have an almost six-fold risk of suffering from a psychiatric disorder. For depression, the risk is almost four times as high and for dementia almost five times (Saunders et al., 1991).

There is little research on the prevalence of illicit drug use in older adults; however, at this stage the problem is thought to be fairly minimal (Health Canada, 2002). Given the volumes of prescription and non-prescription medications consumed by older adults and that polypharmacy is the norm, the inappropriate use of these, often unintentionally, is far more common.

It has been reported that adults with substance misuse issues tend to respond very successfully to interventions (DeHart SS et al., 1997). Accordingly, brief screening for problematic substance use in older people should be incorporated within routine medical checkups and psychological intake interviews in residential aged care facilities (Dawe S et al., 2002). Because older adults seek the majority of behavioural health care either in primary care settings or from mental health providers, it is necessary for primary care providers, geriatric mental health providers, nurses and other aged care professionals to become proficient at assessing and providing interventions (Oslin, 2004).
Methods

Literature search
A search of the literature was undertaken to identify any resources pertaining to problematic substance use in older adults. The search included a review of relevant published and unpublished reports, clinical practice guidelines, systematic reviews, journal publications, and specific substance use data.

A non-systematic search of EMBASE.com (including the EMBASE and Medline databases), as well as clinical practice guideline and government and non-government websites was performed using keywords pertaining to older adults, substance use, screening tools and treatment. In addition, the bibliographies of key included papers were examined for relevant studies.

Citations were downloaded into a Reference Manager database from the various sources described above. This included 174 citations found through the EMBASE.com database search and 60 citations identified from the search of grey literature and other databases. Citations were reviewed for relevance and, where appropriate, full text publications were requested. A full list of citations, including those not referenced in this report, is provided in Appendix A.

The majority of the information in this rapid literature scan came from a report by Canada’s Federal department of health (Health Canada) titled ‘Best Practices: Treatment and rehabilitation for seniors with substance use problems’(Health Canada, 2002). The report contained a full literature review and interviews with key experts, as well as a guidelines chapter titled ‘Best Practices’. Information from this document was supplemented with information found in journal articles and other published reports.

Structure of report
There are a number of different issues that could be discussed under the broad topic ‘problematic substance use in older adults’. This report focuses on the misuse of alcohol in older adults. The problematic use of prescription and illicit drugs has also been covered wherever possible. The results are divided up into four main sections: (i) psychiatric problems associated with substance misuse, (ii) identification of problematic substance use, (iii) treatment issues, and (iv) treatment approaches.
Results

Psychiatric problems associated with substance misuse

Cognitive deficits
It is often difficult for health professionals to determine whether the cause of a decline in cognitive abilities is due to substance use problems or due to the onset of chronic diseases or dementia (Allen D.N & Landis RKB, 1997). Overall, the general level of cognitive function remains intact in most who have alcohol use problems, although when specific abilities are tested, deficits are observed in memory, perceptual-motor skills, conceptual learning, and problem solving (Health Canada, 2002). These deficits can improve after detoxification, but problems with abstraction and visuo-spatial abilities often persist (Allen D.N et al., 1997).

Alcohol related dementia
Dementia is a leading cause of morbidity and mortality in older adults in residential aged care. An area of continued controversy is the role of alcohol as a causative factor and risk factor for dementia (Oslin DW, Atkinson RM, Smith DM, & Hendrie H, 1998). There is conflicting evidence in this area with one recent systematic review reporting that small amounts of alcohol may be protective against dementia and Alzheimer’s disease but not for cognitive decline. However, the authors warned that because of heterogeneity in the data, findings should be interpreted with caution (Peters R, Peters J, Warner J, Beckett N, & Bulpitt C, 2008). However, brain dysfunction and dementia are very prevalent in older individuals with alcoholism (Oslin DW et al., 1998). One study has proposed guidelines for the classification of alcohol related dementia (Appendix B).

Korsakoff’s dementia is the dementia most commonly associated with alcoholism (Allen D.N et al., 1997). It is due to a prolonged thiamine deficiency and has a characteristic pattern of both anterograde amnesia and retrograde amnesia. Korsakoff’s dementia has a faster onset compared to alcohol-related dementia. Those with Korsakoff’s dementia and alcohol-related dementia may experience a broad range of cognitive dysfunction, often encompassing visuo-spatial and problem-solving as well as memory problems (Allen D.N et al., 1997).

Psychiatric conditions
Psychological co-morbidity of substance abuse and mental health problems is frequently mentioned in the literature (Benshoff JJ & Harrawood LK, 2003; Norton ED, 1998). Research has shown that older adults with problematic alcohol use suffer from more psychiatric disorders than people in the general population (Health Canada, 2002).

Depression is the most common mental health problem co-morbid with substance abuse, but it is difficult to determine the nature of the relationship between the two. Are people depressed because they drink or do they drink because they are depressed? (Health Canada, 2002). Mood and anxiety disorders, also common in older adults, are both exacerbated by alcohol and substance misuse (Benshoff JJ et al., 2003). Older
adults who suffer from alcoholism and depression are also at an increased risk of suicide.

Identifying problematic substance use

Alcohol

There is consensus that there is not one specific type of drinker representative of the older adult age cohort (Allen D.N et al., 1997; Fingerhood M, 2000). Rather, there appear to be at least two broad categories of problem alcohol users. “Early-onset” drinkers comprise roughly two-thirds of the group and “late-onset” drinkers make up the other third. More recently these categorisations have been conceptualised as chronic or situational (Benshoff JJ et al., 2003).

The chronic drinker usually has a lengthy history of alcohol related problems that started before the age of 40 years and are more likely than situational drinkers to drink to intoxication, and to have a history of treatment for alcohol use (Fingerhood M, 2000). The situational drinker is generally considered to have developed an alcohol problem after the age of 40 years, often as a reaction to the losses and life changes associated with aging. Situational drinkers tend to have fewer behavioural problems, a more supportive social network, better relationships with family members, less alcohol-related health problems, and can be more responsive to treatment (Health Canada, 2002).

Screening for problematic alcohol use

Despite the need to screen for potential substance problems in older adults, researchers in the area have noted that diagnostic criteria for alcohol misuse and dependence, as defined by the Diagnostic and Statistical Manual, 4th edition (DSM-IV) and the International Classification of Diseases, 10th edition (ICD-10), are not appropriate for the signs and symptoms exhibited by older adults with problematic substance use. Alcohol misuse and dependence in older persons tends to be reflected in age-specific consequences such as increased accidents, inadequate nutrition, increasing social isolation, depression, liver disease, dementia, incontinence, seizures, hypertension, and interaction effects with other medication (Conigliaro J, Kraemer K, & McNeil M, 2000).

Based on these differences, several screening tools have been described as potentially useful when trying to identify problematic alcohol use in older adults. Screening typically involves broad-based questionnaires designed to determine whether or not individuals are experiencing problematic substance use (Benshoff JJ et al., 2003). The practical issues of implementing these are well described in an article by Bowman and Gerber (2006). These authors comment that patients are often aware of the substance abuse assessment tests and know how to answer the questions to put the “best face” on the outcome. This desire to present the ideal scenario also holds true for other types of substance abuse. Nevertheless, despite their limitations, screening instruments could be used and adapted to residential aged care to identify historical or current problematic alcohol use. A summary of assessment instruments used to screen and diagnose alcohol use disorders in older adults is provided in Table 1.
There appears to be debate in the literature over which instruments perform the best in older adults. Those most frequently described and considered potentially appropriate for New Zealand within the residential aged care setting have been outlined in further detail below.
Table 1: Characteristics of selected assessment instruments used to screen and diagnose alcohol use disorders in older adults

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Questionnaire</th>
<th>Interview</th>
<th>Administration time (minutes)</th>
<th>Screen</th>
<th>Diagnosis: DSM-III-R criteria</th>
<th>Diagnosis: ICD-9 criteria</th>
<th>Computer administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical screens:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Use Disorders Identification Test (AUDIT)</td>
<td>x</td>
<td>3</td>
<td>x</td>
<td>x</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>BONS</td>
<td>x</td>
<td>1</td>
<td></td>
<td>x</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>CAGE</td>
<td>x</td>
<td>x</td>
<td>1</td>
<td></td>
<td>x</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Lifetime Drinking History (LDH)</td>
<td>x</td>
<td>30</td>
<td></td>
<td></td>
<td>x</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Michigan Alcohol Screening Test (MAST)</td>
<td>x</td>
<td></td>
<td>x</td>
<td>15</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>MAST-Geriatric Version (MAST-G)</td>
<td>x</td>
<td>x</td>
<td>15</td>
<td></td>
<td>x</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Self-Administered Alcoholism Screening Test (SAAST)</td>
<td>x</td>
<td>x</td>
<td></td>
<td>5</td>
<td>x</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Ten-Question Drinking History (TQDH)</td>
<td>x</td>
<td>5</td>
<td></td>
<td>x</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Structured Clinical Interview for DSM-III-R (SCID) Alcohol Section</td>
<td>x</td>
<td>20-30</td>
<td></td>
<td></td>
<td>x</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Substance Use Disorders Diagnostic Schedule (SUDDS) Alcohol Section</td>
<td>x</td>
<td>15-20</td>
<td></td>
<td></td>
<td>x</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: BONS= blackouts, objections, neglect of responsibilities, shakes; CAGE= cut down, annoyed, guilty, eye-opener

*Most instruments presented in Table 1 were developed in the US. Only the AUDIT was developed on a cross-national basis.

**Source:** DeHart and Hoffmann (1995), Table 2, page 1730
The CAGE is a basic screening test, one that is quick and simple to administer but that does not elicit much information without follow-up questions or explanations (Table 2) (Bowman & Gerber, 2006; DeHart SS et al., 1997). The main advantage of the CAGE is that it can be included as part of the initial intake interview as well as during the assessment/evaluation process. The CAGE asks four questions and if an individual answers yes to any of the questions, further exploration of their alcohol use is indicated.

The performance of the CAGE in older populations has been assessed in several studies. One study of outpatients over 60 years of age found that, for a CAGE score ≥1, the sensitivity was 86% and specificity 78% for diagnosing alcoholism with DSM-IV criteria (Buchsbaum, Buchanan, Welsh, Centor, & Schnoll, 1992). Another found that for individuals over 64 years of age, the sensitivity and specificity was 88%. Although caution is warranted in using this instrument, the CAGE represents a means by which health professionals can initiate discussion about substance use (Benshoff JJ et al., 2003).

| 1. | Have you ever felt you should Cut down on your drinking? | Yes | No |
| 2. | Have people Annoyed you by criticizing your drinking? | Yes | No |
| 3. | Have you ever felt bad or Guilty about your drinking? | Yes | No |
| 4. | Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (Eye-opener)? | Yes | No |

Source: Benshoff et al 2003, page 47

The Michigan Alcohol Screening Test-Geriatric version (MAST-G) is designed specifically for older adults. The MAST-G is a 24-item self-report questionnaire, scored dichotomously (yes/no), which takes into account some of the changes in social and physiological behaviour associated with older populations (Dawe S et al., 2002; Bowman et al., 2006). Using a cut off of ≥5, the MAST-G has been found to have good sensitivity (70–95%) and specificity (65–84%) (Fingerhood M, 2000).

The S-MAST-G is a short version of the MAST-G which has been reduced to a 10-item questionnaire, scored dichotomously (yes/no) (Table 3). Three or more positive responses is indicative of a recent or current alcohol use problem. One review by Dawe and colleagues, conducted in 2002, stated that the S-MAST-G has yet to be validated. However, it appears that the instrument is being used in a study by Lee et al (2009) to measure the effectiveness of a harm-reduction intervention in older adults with substance problems.

Although S-MAST-G is a tool which could be incorporated into screening for residential aged care persons in New Zealand as it does not appear to be culturally sensitive, this requires further validation.
Table 3: Short Michigan Alcoholism Screening Test - Geriatric Version (S-MAST-G)

<table>
<thead>
<tr>
<th>In the past year:</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>When talking with others, do you underestimate how much you actually drink?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>After a few drinks, have you sometimes not eaten or have been able to skip a meal because you did not feel hungry?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Does having a few drinks help decrease your shakiness or tremors?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Does alcohol sometimes make it hard for you to remember parts of the day or night?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Do you usually take a drink to relax or calm your nerves?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Do you drink to take your mind off your problems?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have you ever increased your drinking after experiencing a loss in your life?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Has a doctor or nurse ever said they were worried or concerned about your drinking?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have you ever made rules to manage your drinking?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>When you feel lonely, does having a drink help?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Blow FC. Michigan Alcoholism Screening Test–Geriatric Version (MAST-G).

AUDIT

The alcohol use disorders identification test (AUDIT) questionnaire was developed by the World Health Organisation (WHO) and is a 10-item pen and paper survey that measures negative alcohol related consequences as well as total alcohol consumption (Figure 1). However, it has been suggested that the AUDIT is insensitive to alcohol misuse in older persons (Dawe S et al., 2002). One study found the AUDIT had low sensitivity (57%) to alcohol abuse in a large cohort of hospitalised Australian inpatients over 65 years of age (McInnes & Powell, 1994b). Another found that the test had low sensitivity (33%) in American male war veterans over 65 years of age (Morton JL, Jones TV, & Manganaro MA, 1996). One author suggested the poor performance of the AUDIT in older adults may be due to misplaced emphasis, with the focus on the actual consumption of alcohol, which appears less relevant to alcohol misuse and related problems in this age group (Conigliaro J et al., 2000).

The AUDIT-C has been validated as a 3-item screen for alcohol misuse in veteran outpatient clinics and in the primary care setting. A cross-sectional study compared screening questionnaires (including the AUDIT-C, full AUDIT, self-reported risky drinking, AUDIT question #3, and an augmented version of the CAGE) with standardised interviews based on the DSM-IV. Based on area under receiver operating characteristic (ROC) curves, the AUDIT-C performed as well as the full AUDIT and outperformed the risky drinking questionnaire, AUDIT #3 question and augmented CAGE questionnaire (Bradley et al., 2007).
Problematic substance use in older adults: a rapid literature scan

Figure 1: The AUDIT Questionnaire

Check the number that comes closest to the patient’s answer.

1. How often do you have a drink containing alcohol?
   (0) Never (1) Monthly or less (2) Two to four times a month (3) Two to three times a week (4) Four or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking? (Code number of standard drinks)
   (0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7 to 9 (4) 10 or more

3. How often do you have six or more drinks on one occasion?
   (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

4. How often during the past year have you found that you were not able to stop drinking once you had started?
   (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

5. How often during the past year have you failed to do what was normally expected from you because of drinking?
   (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

7. How often during the past year have you had a feeling of guilt or remorse after drinking?
   (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

8. How often during the past year have you been unable to remember what happened the night before because you had been drinking?
   (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?
   (0) No (2) Yes, but not in the past year (4) Yes, during the past year

10. Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?
    (0) No (2) Yes, but not in the past year (4) Yes, during the past year

Procedure for scoring AUDIT

Questions 1-8 are scored 0, 1, 2, 3, or 4. Questions 9 and 10 are scored 0, 2, or 4 only. The response is as follows:

<table>
<thead>
<tr>
<th>Question</th>
<th>Score 0</th>
<th>Score 1</th>
<th>Score 2</th>
<th>Score 3</th>
<th>Score 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>Never</td>
<td>Monthly or less</td>
<td>Two to four times per month</td>
<td>Two to three times per week</td>
<td>Four or more times per week</td>
</tr>
<tr>
<td>Question 2</td>
<td>1 or 2</td>
<td>3 or 4</td>
<td>5 or 6</td>
<td>7 to 9</td>
<td>10 or more</td>
</tr>
<tr>
<td>Questions 3-6</td>
<td>Never</td>
<td>Less than monthly</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily or almost daily</td>
</tr>
<tr>
<td>Questions 9 and 10</td>
<td>No</td>
<td>Yes, but not in the last year</td>
<td>Yes, during the last year</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total scores of 5 or more are considered hazardous use.

Source: Bowman 2006, Table 2, page 51

Research has demonstrated that the MAST-G and the CAGE have comparable sensitivity for identifying problematic alcohol use in older adults while the AUDIT is somewhat less sensitive (Menninger, 2002; Morton JL et al., 1996). However, Rigler (2000) cautioned that the MAST-G and CAGE may fail to adequately distinguish between current and past drinking behaviours.

Medical evaluation

A physical examination along with laboratory analysis can also be performed on older adults suspected of having problematic alcohol use. After physical examination, findings such as hypertension, the stigmata of alcoholic cirrhosis, and ataxia due to cerebella damage are suggestive of an alcohol use disorder (Ross S, 2005). Several abnormal laboratory findings are also suggestive of problematic alcohol use such as increased mean corpuscular haemoglobin, increased aspartate aminotransferase, increased g-glutamyltransferase, and increased mean corpuscular volume. Abnormal
uric acid and triglyceride levels may also increase suspicion of alcohol misuse (Ross S, 2005).

A complete medical review of systems is essential as many medical problems in older adults can either be caused or worsened by alcohol misuse. A list of common problems, although by no means exhaustive, includes cardiac problems (hypertension, arrhythmias, and cardiomyopathy); liver damage (including fatty liver, alcoholic hepatitis, and cirrhosis); gastrointestinal problems (such as gastritis, esophagitis, esophageal varices, and hemorrhage); immune system impairment; malnutrition; and endocrinological problems including decreased bone density (Ross S, 2005).

**Prescription drugs and over-the-counter medication**

Perhaps a unique problem with older adults is the misuse of prescription and over-the-counter (OTC) medications. This includes the misuse of substances such as sedatives and hypnotics, narcotic and non-narcotic analgesics, diet aids, decongestants, and a wide variety of other over-the-counter medications (Oslin, 2005). In general, pain relievers, blood pressure medications, diuretics, stomach remedies and laxatives are the most commonly taken medications in older adults (Health Canada, 2002).

A common problem with medications is the inappropriate and indiscriminant use of products and the use of multiple medications. Although not considered a disorder by the DSM-IV, there is a growing body of literature on the increase in morbidity and mortality associated with misusing prescription and non-prescription medications. Many medications used by older adults have the potential for inducing tolerance, withdrawal syndromes, and harmful medical consequences such as cognitive changes and renal and hepatic diseases (Oslin, 2005).

In Australia, around two-thirds of individuals over the age of 60 years use four or more drugs (Elliott RA, 2006). Polypharmacy is the norm in Australian residential aged care facilities, with each resident prescribed an average of seven drugs (range 0–22) (Roberts MS et al., 1998; Elliott RA & Thomson WA, 1998). On average, two of these are prescribed on an as needed basis, most commonly analgesics, laxatives and psychotropics (Elliott RA et al., 1998; Stokes JA, Purdie DM, & Roberts MS, 2004). The situation is likely to be similar in New Zealand.

The greater use of prescription medications by older adults is largely due to increased medical conditions with age. However, prescription drug misuse also occurs in this population. Signs of prescription drug misuse in older adults include loss of motivation, memory loss, difficulty with daily activities, sleeping difficulty and drug seeking behaviour (Fingerhood M, 2000). There are a number of types of misuse, including overdose, underdose, use of prescriptions for reasons other than prescribed, and drug combinations that may poorly interact. Reasons for unintentional misuse of medications include difficulties in reading and following prescriptions, cognitive deficits, cost and complexity of drug treatment (Patterson TL, 2008).

**Tobacco dependence**

One review of problematic substance use in nursing homes suggested that smoking and tobacco misuse is the most common among older persons. Tobacco use contributes to chronic health problems encountered in residential aged care, including
pulmonary and cardiovascular disease, stroke and cancer (Joseph, 1995b). Continued smoking exacerbates other common conditions such as obstructive lung disease, osteoporosis, and peripheral vascular problems. Immediate and long-term benefits of smoking cessation, including a substantial decrease in mortality, have been well documented, even in older adults. Generally older adult smokers will either refuse to quit or quit without specialised treatment, often because of health problems. Although the majority of older adult smokers who do quit do so without specialised treatment, common smoking cessation strategies such as relaxation, social support, coping skills, group counselling and self-help are still applicable and can be adapted to suit residential aged care (Joseph, 1995a).

Illicit drugs

There are few studies examining the prevalence of illicit drug abuse in older adults (Fingerhood M, 2000). However, at this stage the problem is thought to be fairly minimal. A theory has been proposed that suggests drug dependence is infrequently observed among older adults because they either grow out of their addictions due to adverse consequences or they die (Health Canada, 2002). Anecdotally, older heroin users are usually life-long addicts who have survived. However, the number of heroin addicts who will survive into their sixties is likely to be extremely small (Fingerhood M, 2000).

Clinically, illicit drug use is most often reported for individuals with a history of alcohol misuse. Suggestitious use of an illicit drug may be difficult to detect and has the potential to cause significant damage to older adults in residential aged care who are often already frail or chronically ill (Joseph, 1995d). Nevertheless, more research is required in this area because as the proportion of baby boomers in the older adult’s category grows, changes in prevalence of illicit drug use may occur.

Screening for other substances

Screening tools for abuse and dependence on substances other than alcohol are discussed less frequently in the literature. Tabisz et al. (1991) developed the Manitoba Drug Dependency Screen. This instrument screens for the drugs used, the quantity and frequency of use, the perceived intent of the drug, and whether it was prescription or not. Baron and Carver (1997) suggest possible questions that may be asked to screen for medication misuse or abuse. Their questions focus on adherence to prescription instructions, multiple prescription drug use, sharing of prescription medications, eliciting the same prescription from multiple physicians or psychiatrists, use of OTC medications, and concurrent alcohol use. The use of the CAGE has been advocated to screen for drug use problems by substituting the words ‘drug use’ or the name of the substance in question for ‘drinking’. Although this seems a reasonable approach, it has not been validated (Joseph, 1995c).

Another study developed the Simple Substance Use Screening Scale, which was found to correctly classify problematic drug use with a sensitivity of 82% and specificity of 84% in people with mental health problems (Ley, Jeffery, Shaw, & Weaver, 2007). The authors suggested that given its simplicity and brevity, it may be useful for screening in mental health practice. There is also the Drug Abuse Problem Assessment for Primary Care, a computerised drug and alcohol abuse instrument (Nemes et al., 2004). The study found that older adults were less likely to perceive
their drug use as problematic. Another study examined the AC-Co-occurring Disorder Screen, which is for the detection of people with co-occurring disorders of substance abuse, mental illness, domestic violence and trauma (Cherry, Dillon, Hellman, & Barney, 2008). The screen contains 17 common behavioural health questions used in these fields. The authors concluded that further testing was required but that the tool may be useful in identifying residents with concurrent disorders (Cherry et al., 2008). Initiating a contractual arrangement with patients for randomly timed drug screens is another approach to monitoring illicit substance use problems. Whether these instruments or the contractual approach could be applied in residential aged care in New Zealand remains uncertain.

### Diagnostic criteria

Problems with alcohol and drug use are identified by various means, including reviews of case histories, clinical interviews, and meeting established criteria. The criteria laid out in the Fourth edition of the Diagnostic Statistical Manual (DSM) of the American Psychiatric Association provide a detailed description of the conditions and behaviours that constitute a diagnosis of substance abuse or dependence. Several researchers have commented that the DSM-IV criteria are appropriate for young and middle-aged adults, but are less appropriate for older adults (Health Canada, 2002). Fingerhood (2000) suggested an alteration of the criteria as shown in Table 4.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Special considerations for older adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance</td>
<td>May have problems with even low intake due to increased sensitivity to alcohol.</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>Many late-onset alcoholics do not develop physiological dependence.</td>
</tr>
<tr>
<td>Taking larger amounts or over a longer period than was intended.</td>
<td>Increased cognitive impairment can interfere with self-monitoring.</td>
</tr>
<tr>
<td>Unsuccessful efforts to cut down or control use.</td>
<td>No change</td>
</tr>
<tr>
<td>Spending much time to obtain and use alcohol and to recover from effects.</td>
<td>Negative effects can occur with relatively low use.</td>
</tr>
<tr>
<td>Giving up activities due to use.</td>
<td>May have fewer activities, making detection of problems more difficult.</td>
</tr>
<tr>
<td>Continuing use despite physical or psychological problems caused by use.</td>
<td>May not know or understand that problems are related to use, even after medical advice.</td>
</tr>
</tbody>
</table>

**Source:** Fingerhood 2000

In general, the criteria for diagnosing substance abuse relates to problems with occupational or social functioning, which is difficult to apply to residents in aged care as they are almost always without an occupation and tend to have fewer social contacts (Health Canada, 2002). Leniency is advisable if the DSM-IV diagnostic criteria are applied to older adults in aged care.

### Clinical management and treatment options

The following section provides a summary of the treatment issues, treatment approaches and barriers to treatment for older adults with problematic substance use.
Treatment issues for older adults

When making treatment referrals for older adults, Benshoff and Harrawood (2003) suggest there are several pitfalls that can occur including: (a) a lack of individualised treatment approaches; (b) lack of accessibility; and (c) over reliance on the self-help model. Koch and Rubin (1997) suggest that traditionally health professionals have attempted to provide a ‘one size fits all’ treatment plan for older adults, but this may not meet the needs of individuals (Koch DS & Rubin SE, 1997). Whether or not age-specific interventions are more efficacious, and what constitutes a successful outcome, has been a subject of debate.

It is generally agreed that treatment should take into account certain factors associated with age. Older adults tend to be more reluctant to seek treatment due to personal and societal views of substance dependence as a moral weakness. Treatments that use a confrontational approach often depend on the patient accepting they have a problem and run the risk of shaming and stigmatising the individual. Older adults may need more time to tell their story, especially if they are not accustomed to discussing sensitive, personal issues with other people (Segal D.L, Van Hasselt V.B, Hersen M, & King C, 1996).

Zimberg (1996) (Zimberg S, 1996) highlighted three steps to an age-specific approach for treatment for older adults:

- the stresses associated with aging must be identified and dealt with;
- an accurate diagnosis must be made in order to rule out the existence of other factors that could affect treatment outcome. For example, depression and alcohol dependence often co-exist and the depression must be treated with an integrated treatment plan with the substance use problem; and
- older adults in care should be encouraged to find activities and interests and create a new social support structure. Family members and other caregivers should be involved and age-specific support groups and treatment programs should be used.

There are often psychiatric co-morbidities in existence in older adults with problematic substance use. Depression is the most common psychiatric disorder with approximately 10% of adults over the age of 65 years affected (Segal D.L et al., 1996). Other co-morbid disorders also occur in this age group, including bipolar disorder, schizophrenia, anxiety disorders and personality disorders. All of these problems require treatment that will differ from treatment focused solely on substance dependence. Detection of psychiatric disorders apart from the substance use will increase the likelihood of successful treatment and recovery (Health Canada, 2002).

Treatment approaches

A summary of treatment planning for older adults with alcohol use disorders is provided in an article by Ross (2005) (Ross S, 2005) and this is shown in Figure 2.
Special approaches may be necessary when treating substance-use disorders in older adults with multiple comorbidities and/or functional impairment, and the least intensive approaches should be considered first (Simoni-Wastila & Yang, 2006).

**Education and Awareness**

Older adults in residential aged care, families and caregivers all need to be made aware of the signs and symptoms of substance use problems. Substance abuse counsellors, physicians, social workers, mental health counsellors and nurses may not always have enough information about substance use issues (Health Canada, 2002). Providing resources that increase awareness of problematic substance use in older adults is an important first step in improving treatment.

As stated by Bowman and Gerber (2006), for older adults in the initial stages of alcohol misuse or abuse, general education is beneficial (Bowman et al., 2006). A medical review, with discussion of contraindications of alcohol use may be appropriate, as may be a discussion of body changes over time and the increased negative effects of alcohol use from a physiological perspective. The authors also emphasise that listening to why the person drinks is essential to addressing the amount of alcohol consumed.
A practical example is the older drinker who may perceive having a nightcap as beneficial for sleeping. Aged care health professionals should explain to the individual the interference that alcohol has with normal sleep patterns that result in the client falling asleep but not sleeping soundly or restfully (Bowman et al., 2006). In terms of general health and education, the individual may not be aware that there are alcohol-related vitamin and general dietary deficiencies when alcohol curbs appetite or does not permit proper absorption and processing of food. Also, the client may not be aware of how alcohol impairs cognition and recall.

In terms of prescription and non-prescription medications, it is important to educate older adults to read the label closely. It is also important to explain complications resulting from concurrent alcohol and other medication use, such as increased drowsiness resulting from antihistamines and alcohol (Bowman et al., 2006). Heavy drinkers who do not see the need to change their lifelong drinking patterns may benefit from health professionals providing information on normal drinking behaviour. The quantity and frequency of alcohol consumption, as well as prescription and over-the-counter medication use, should always be monitored (Health Canada, 2002).

**Self-help/group therapy**

Group therapy is based on the idea that recovery is aided by peer identification and by learning from the experiences of others. Self-help can foster a sense of optimism and help build social relationships that are not based on substance use (Health Canada, 2002). Self-help groups are not resource intensive as a health professional doesn’t always have to be present at group meetings (Health Canada, 2002). Many peer-led self-help groups are based on the 12-step approach that is used for problematic alcohol and narcotic use. Some programs have been developed that maintain an emphasis on group participation rather than the 12 steps.

Both group and family therapies are also beneficial in reducing the risk of relapse for those recovering from problematic substance use. While groups in general have been helpful in producing positive outcomes, tailoring groups to older adults has been reported to be even more beneficial (Barrick C & Connors GJ, 2002). In particular, it has been reported that older adults in self-help groups prefer age-specific sessions held at a relatively slow pace (Health Canada, 2002).

It should be noted that some residents in aged care may have age-related mobility or hearing problems that prevent participation in peer self-help groups (Benshoff JJ et al., 2003).

**Brief Interventions**

For older individuals experiencing problems with drinking who are not alcohol dependent, a brief intervention can decrease drinking to a moderate level in up to one-third of individuals (Fingerhood M, 2000). The intervention steps, as outlined in **Table 5**, consist of two or three 10-15 minute counselling sessions to identify the problem, discuss the consequences, and determine a treatment plan. The sessions should ideally be non-confrontational and supportive. Older patients in institutional settings have been shown to benefit when alcohol abuse is addressed (Oslin, Streim, Parmelee, Boyce, & Katz, 1997).
Dependent drinkers need more structured treatment, although even for them, the strategies of brief intervention may be an effective way of initiating a treatment plan (Fingerhood M, 2000).

**Cognitive behavioural approaches**

Behavioural approaches to alcohol reduction are difficult to implement and reinforce with older adults if they suffer from cognitive dysfunction that interferes with their memory (Segal D.L et al., 1996). Some authors suggest using a cognitive approach that helps older adults examine the antecedents, behaviours and consequences (A-B-C paradigm) of their substance use. Provision of substance use education, skills training in problem solving and social reinforcement may also be helpful (Segal D.L et al., 1996).

Some irrational beliefs may contribute to feelings of hopelessness and uselessness which older adults may deal with by self-medicating or misusing substances. Examples of such beliefs include:

1. that they have no control over their life now that they are old
2. that now that they are retired, they are worthless
3. that if they are dependent on others they are worthless
4. that they are too old to get married or to have a sex drive
5. that senility, sickness and disability are inevitable
6. that isolation and loneliness are a normal part of aging, and
7. that they are too old to change or to respond to therapy (Norton ED, 1998).

Cognitive-behavioural treatment has also been demonstrated to aid in preventing relapse in individuals who exhibit alcohol dependence (Barrick C et al., 2002). By addressing interpersonal and intrapersonal factors in relation to skill development, patients can decrease their risks of relapse. It has also been reported that cognitive-behavioural therapy is well suited for enhancing skills to cope with stressful events often experienced by older adults (e.g. loss of family and friends, retirement, physical decline) (Barrick C et al., 2002).

**Psychosocial approaches**

Psychosocial treatment begins by focussing on aspects that are important to the individual, and aspects that they feel confident in. By building self-efficacy and social
networks, the person will develop the necessary skills to be able to address the substance use problem (Health Canada, 2002). Substance use problems can contribute to worsening psychological problems. After long term reliance on a substance, individuals may exhibit poor coping skills, and feelings of frustration and inadequacy. These can be addressed by providing empathic understanding and training in coping and assertiveness skills (Health Canada, 2002).

The BRENDA is a psychosocial treatment model designed to identify and treat older adults with alcohol problems (Kaempf G, O’Donnell C, & Oslin D.W, 1999). Components of the program are shown in Table 6 below.

Table 6: BRENDA psychosocial treatment model

| B | Biopsychosocial assessment |
| R | Report assessment findings to patient |
| E | Empathic approach |
| N | Needs identified during the assessment |
| D | Direct advice (based on the patient’s needs) |
| A | Assessment of the direct advice |

The rationale for the model pertains to the fact that primary care givers without specialised substance use knowledge are often the first point of contact for an individual with substance use problems. However, the same principles could be applied for health care professionals in residential aged care. The BRENDA anagram can be used to remember the elements of treatment.

An empathic approach is essential throughout the process. Aged care workers must assess the patient’s physical condition and personal history, screen for possible problems (using one of the previously described screening instruments such as the CAGE or MAST-G), identify patient needs, offer advice to alter drinking behaviour and provide follow-up through subsequent contact (Health Canada, 2002). Kaempf et al. (1999) applied the BRENDA model in conjunction with a double-blind test of naltrexone or placebo (Kaempf G et al., 1999). The researchers found that older adults were more likely to attend treatment than younger adults, suggesting that this model could be more effective with older adults.

Harm reduction approach

Initially, a clinician may want to focus on harm reduction, aiming for general decreases in consumption, slowly changing the individuals drinking or substance use pattern, which may eventually lead to abstinence (Bowman et al., 2006). According to Oslin (2000), since even low levels of alcohol consumption in older adults can have harmful effects, any reduction in drinking behaviour will be beneficial. Harm reduction approaches also need to address misuse of prescription medications by finding ways to increase compliance with prescription or OTC medications (Kostyk D, Lindblom L, Fuchs D, Tabisz E, & Jacyk W.R, 1994). Usually, harm reduction programs will tolerate continued substance use, and may be especially applicable in treating prescription medication problems. For example, if someone with chronic or severe pain needs to remain on a low dose opioid, or those with depression or anxiety require a maintenance dose of benzodiazepine (Health Canada, 2002). Decreases in problematic prescription use may be accomplished by “tapering”, which involves a
slow but steady reduction in the dose and frequency of the drug over time (Kostyk D et al., 1994).

**Pharmacological interventions**

Older adults with alcohol dependence problems have not traditionally received pharmacological agents as part of the treatment process (Oslin D.W & Blow FC, 2000). However, for those with physiological dependence, medical intervention is often undertaken as a precaution because of the life-threatening risks associated with alcohol and other substance withdrawal. Some individuals may need medication specific to alcohol, to either reduce the desire to drink or cause adverse effects if alcohol is consumed. Use of these medications must be assessed individually by someone with an in-depth knowledge of concurrent medication use (Bowman et al., 2006).

Acamprosate is a N-methyl-D-aspartic (NMDA) acid and gamma-aminobutyric acid (GABA) receptor modulator that reduces alcohol craving and the pleasant effects of alcohol and produces unpleasant effects if alcohol is consumed (Barrick C et al., 2002). Disulfiram is an aversive agent that has been used in the treatment for alcohol problems and has also been used to treat younger patients with a joint cocaine and alcohol dependence (Health Canada, 2002). While it may be a helpful adjunct to therapy for younger individuals, use of disulfiram in older adults is not recommended because of potentially serious adverse effects (Oslin D.W et al., 2000; Rigler SK, 2000). Temposil is another alcohol sensitising agent that has been used for alcohol addiction.

Naltrexone is an opioid receptor antagonist that has been shown to produce few harmful side effects in middle-aged patients with alcohol dependence. It has also proved effective in reducing craving for alcohol and assisted with relapse prevention (Oslin D.W et al., 2000). When naltrexone was tested on veteran’s aged 50 to 70 years, respondents reported improvements in relapses to heavy drinking, though not improvements in achieving abstinence (Oslin D.W et al., 2000). For older persons who have serious illness and pain issues, consultation with a pain management specialist who also knows the consequences of substance and alcohol misuse is imperative (Bowman et al., 2006).

**Nursing issues**

In the areas of substance abuse and geriatrics, there is a recognised benefit of a team approach to care, with nurses playing an extremely important role in the detection and management of older adults. In residential aged care, nurses spend more time with people than physicians, often conducting extensive assessment of physical and cognitive functioning. During this time, sequelae of problematic substance use, such as gait problems or cognitive impairment, may be detected. Nurses may also pick up more subtle cues of substance misuse such as poor self-care or loss of interest in other activities. Educating patients and families about adverse consequences of substance use and the benefits of cessation as well as offering support through the intervention process is essential. Nurses are often involved in initiating treatment as well as in the treatment process itself (e.g. counselling) and in aftercare (Beers MH & Berkow R, 2000).
Treatment summary

It is important for health professionals working in aged care to remember that problematic substance use does not take place in a vacuum. Older adults have specific susceptibilities and needs that must be addressed in treatment. Regardless of whether the diagnosis is abuse or dependence, to effect a change in behaviour, the care worker and individual with the problem must understand the factors contributing to substance use (Bowman et al., 2006). If grief and loss are significant, contact with a grief therapist or other support group dealing with bereavement is important. If isolation is a contributor to problematic substance use, that should be the focus of the intervention.

For those patients who are able to achieve abstinence, relapse-prevention techniques become vital to maintain sobriety. It is also important to treat co-morbid medical, psychiatric or neurologic conditions that may either be exacerbated by, or contribute to, the development of problematic substance use. It is vital to address exacerbating social factors, for example, the lack of a support network. However, given the number of losses and challenges older adults may face, many exhibit resiliency adapting; these strengths should be drawn upon in substance abuse treatment.

It is important to be empathic, respectful, and straightforward, with attention given to simple and clear communications geared toward the patient’s slower informational processing abilities. Confrontational approaches, common in substance abuse treatment, are rarely helpful. Instead, gentle persuasion is a more effective approach. It is also important to keep in mind what motivates older adults, and what are the relevant, age-appropriate issues (e.g., pain management, social support and physical well-being).

Barriers to treatment

Family members and caregivers, as well as patients, are often unaware of the adverse effects of alcohol and other substance use. A common barrier to treatment is the reluctance of loved ones to interfere with drinking behaviour if it seems to please the older person. Individuals who believe that the older person does not have much left in life to enjoy so should be allowed to drink, have been termed “enablers”. Teaching enablers (e.g., family members, friends, caregivers) about the harmful effects of drinking and the potential interactions of alcohol and prescription drugs can be helpful to ameliorate this (Joseph, 1995e).

In addition, denial is a common barrier with many older adults unwilling to admit, or rationalise, their problematic substance use. Given that many of the identification tools are reliant on self-report measures, this creates the potential for substantial under-diagnosis (Health Canada, 2002). Denial is also a significant barrier to effective treatment. Individuals are very unlikely to co-operate with interventions in residential aged care if they do not believe they have a problem which requires intervention.

With co-morbid conditions such as gastritis, dementia, depression and insomnia common in older adults, and the definition of what constitutes a substance use problem differing, mis-diagnosis is a common barrier to treatment. Aged care workers need to be aware of the signs and symptoms of substance misuse, including the effects of incorrect prescription medication use. For those with substance use issues, the fear
of failure can be a barrier to treatment. According to Segal et al (1996), for late-onset heavy drinkers, fear can combine with discouragement over previous failed attempts at reducing substance use to create feelings of hopelessness. Some individuals believe they are incapable of changing and therefore have given up on trying (Health Canada, 2002).
Limitations

This rapid literature scan cannot be taken as a definitive analysis of the links between substance use problems and older age. The majority of the literature places the emphasis on problematic substance use and considerable research is still required into the extent of the problem in older adults. In particular, the screening tools for the identification of substance misuse have not been validated in the residential aged care setting, nor have they been validated in the New Zealand population.

There was no information found pertaining to substance misuse in indigenous populations. As a result, the similarities and differences in identification and treatment of substance misuse in Maori and Pacific Islanders, compared to the non-Maori and Pacific Islander population in New Zealand, cannot be commented on.

There are many substances that could have been discussed in this rapid literature scan. The focus was the problematic use of alcohol for older adults. The misuse of prescription and non-prescription drugs and illicit drugs has been discussed in less detail, with smoking and tobacco use mostly absent from the report. These are issues that could be explored further in future research.
Summary and Conclusions

Alcohol and substance misuse in older adults has traditionally received little empirical attention in the literature. However, in light of the increasing number of older adults in the population, clinicians and researchers are recognising the importance of evaluating identification and treatment strategies for older adults with problematic substance use.

If alcohol and drug problems in residential aged care are overlooked, the physical and mental health consequences for older adults will be substantial. Effective intervention requires that problematic substance use be actively sought out, documented, carefully evaluated, and Appropriately treated. Additional training is required for aged care workers to better facilitate both the identification and management of historical or current problematic substance use.
References


Appendix A: Full list of identified citations


among patients in substance abuse treatment. Drug and Dependence 58:43-54.


Appendix B: Classification of alcohol related dementia

Table 1. Classification of alcohol related dementia

**Dementia**
Dementia is defined as a significant deterioration of cognitive function sufficient to interfere in social or occupational functioning. As defined by DSM IV this requires a deterioration in memory and at least one other area of intellectual functioning. Moreover, the cognitive changes are not attributable to the presence of delirium or substance induced intoxication or withdrawal.

**Definite Alcohol Related Dementia**
At the current time there are no acceptable criteria to definitively define Alcohol Related Dementia.

**Probable Alcohol Related Dementia**
A. The criteria for the clinical diagnosis of Probable Alcohol Related Dementia include the following:
1. A clinical diagnosis of dementia at least 60 days after the last exposure to alcohol.
2. Significant alcohol use as defined by a minimum average of 35 standard drinks per week for men (28 for women) for greater than a period of 5 years. The period of significant alcohol use must occur within 3 years of the initial onset of Dementia.

B. The diagnosis of Alcohol Related Dementia is supported by the presence of any of the following:
1. Alcohol related hepatic, pancreitic, gastrointestinal, cardiovascular, or renal disease or other end-organ damage.
2. Ataxia or peripheral sensory polyneuropathy (not attributable to other specific causes).
3. Beyond 60 days of abstinence, the cognitive impairment stabilizes or improves.
4. After 60 days of abstinence, any neuroimaging evidence of ventricular or subcortical dilatation improves.
5. Neuroimaging evidence of cerebellar atrophy, especially of the vermis.

C. The following clinical features cast doubt on the diagnosis of Alcohol Related Dementia:
1. The presence of language impairment, especially dysnomia or anoma.
2. The presence of focal neurologic signs or symptoms (except ataxia or peripheral sensory polyneuropathy).
3. Neuroimaging evidence for cortical or subcortical infarct, subdural hematoma, or other focal brain pathology.
4. Elevated Hachinski Ischemia Scale score.

D. Clinical features that are neither supportive nor cast doubt on the diagnosis of Alcohol Related Dementia included:
1. The presence of periventricular or deep white matter lesions on neuroimaging in the absence of focal infarct(s).
2. The presence of the Apolipoprotein C-4 allele.

The diagnosis of Possible Alcohol Related Dementia may be made when there is:
1. A clinical diagnosis of dementia at least 60 days after the last exposure to alcohol.
2. Either: Significant alcohol use as defined by a minimum average of 35 standard drinks per week for men (28 for women) for 5 or more years. However, the period of significant alcohol use occurred more than 3 years but less than 10 years prior to the initial onset of cognitive deficits.
   or
   Possibly significant alcohol use as defined by a minimum average of 21 standard drinks per week for men (14 for women) but no more than 34 drinks per week for men (27 for women) for 5 years. The period of significant alcohol use must have occurred within 3 years of the onset of cognitive deficits.

**Mixed Dementia**
A diagnosis of mixed dementia is reserved for clinical cases that appear to have more than one cause for dementia. The classification of probable or possible should continue to be used to convey the certainty of the diagnosis of ARD. The classification of mixed dementia should not be used to convey uncertainty of the diagnosis or to imply a differential diagnosis.

Alcohol as a Contributing Factor in the development or course of dementia. The designation of alcohol as a contributing factor is used for the situation in which alcohol is used, but not to the degree required or within the time required to meet the classification of probable or possible Alcohol Related Dementia. This designation should not preclude the use of Probable Vascular Dementia or Probable Dementia of the Alzheimer’s type.

Source: Oslin 1998, Table 1, page 208