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# OUR INVISIBLE ADDICTS

College Report CR165

# Our invisible addicts

First Report of the Older Persons' Substance Misuse  
Working Group of the Royal College of Psychiatrists

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# Executive summary and recommendations

Both alcohol and illicit drugs are among the top ten risk factors for mortality and morbidity in Europe and substance misuse by older people is now a growing public health problem. Between 2001 and 2031, there is projected to be a 50% increase in the number of older people in the UK. The percentage of men and women drinking more than the weekly recommended limits has also risen, by 60% in men and 100% in women between 1990 and 2006 (NHS Information Centre, 2009a). Given the likely impact of these two factors on health and social care services, there is now a pressing need to address substance misuse in older people.

This report has brought together a group of health professionals with expertise in substance misuse in older people, whose remit it has been to develop the existing knowledge base according to the following terms of reference:

- examining the nature and extent of substance misuse in older people
- identifying precipitants and complications
- highlighting best-practice guidance
- exploring training opportunities
- developing future strategy, encompassing clinical service provision and developments, training and education, research, and policy.

## NATURE AND EXTENT OF THE PROBLEM

- The proportion of older people in the population is increasing rapidly, as is the number of older people with substance use problems
- Mortality rates linked to drug and alcohol use are higher in older people compared with younger people
- High rates of mental health problems in older people (including a high prevalence of cognitive disorders) result in frequent, complex psychiatric comorbidity accompanying substance use disorders
- Older people may show complex patterns and combinations of substance use (e.g. alcohol plus inappropriate use of prescribed medications)

- Older people use large amounts of prescription and over-the-counter medication and rates of misuse (both intentional and inadvertent) are high, particularly in older women
- Although alcohol use does decline with age, a significant number of older people consume alcohol at dangerous levels
- Although illicit drug use is uncommon in the over-65 age group at present, there have already been significant increases in the over-40 age group. As this cohort ages we should anticipate a significant increase in the number of older people using illicit drugs

## PRECIPITANTS AND COMPLICATIONS

- Late-onset substance misuse has different aetiological and demographic associations, and probably a better prognosis, than early-onset misuse
- In older people, the relationship between cognitive function and substance (particularly alcohol) use is complex, as is that between functional mental health problems (e.g. anxiety and depression) and substance use. The direction of causality is often unclear
- Older men are at greater risk of developing alcohol and illicit substance use problems than older women. However, older women have a higher risk of developing problems related to the misuse of prescribed and over-the-counter medications
- Physical health problems and the long-term prescription of medication (especially hypnotics, anxiolytics and analgesics) are important factors in the development of substance misuse in older people
- Psychiatric comorbidities of substance misuse are common in older people (including intoxication and delirium, withdrawal syndromes, anxiety, depression and cognitive changes/dementia)
- Among older people, psychosocial factors (including bereavement, retirement, boredom, loneliness, homelessness and depression) are all associated with higher rates of alcohol use
- Because of physiological changes associated with ageing, older people are at increased risk of adverse physical effects of substance misuse, even at relatively modest levels of intake
- Alcohol and tobacco use have the greatest impact in population terms on physical health, affecting many systems (including the cardiovascular, gastrointestinal, neurological and respiratory systems)
- Presentation can be subtle or non-specific and the aetiological role of substance use in physical conditions is frequently overlooked

## BEST PRACTICE

- Older people with substance use problems have high levels of unmet need



- General practitioners should screen every person over 65 years of age for substance misuse as part of a routine health check, using specific tools such as the Short Michigan Alcoholism Screening Test – Geriatric version (SMAST-G); screening should also incorporate cognitive testing using tools such as the Mini-Mental State Examination (MMSE)
- Re-screening should be carried out if certain physical and/or psychological symptoms are present or if the person is experiencing major life events
- Older people can and do benefit from treatment and in some cases have better outcomes than younger people
- Treatment of coexisting physical conditions (including chronic conditions such as hepatitis C and chronic obstructive pulmonary disease) and psychological conditions is a very important part of management
- Although applying the standard diagnostic criteria for substance use disorders is useful, it should be noted that sometimes they may not be appropriate for older people
- Patients who repeatedly do well in hospital and badly at home, those with unexplained ‘ups & downs’ in health presentation, those with inconsistencies and contradictions in the history and presentation are of particular concern
- Association of substance misuse (particularly alcohol) and conditions such as liver disease, hypertension, diabetes, falls, cognitive problems, depression, self-harm, incontinence (often not a readily apparent association) indicates specific physical investigations
- Close liaison between all professionals, disciplines and agencies involved in the care of the patient is very important
- Current recommended ‘safe limits’ for alcohol consumption are based on work in younger adults. Because of physiological and metabolic changes associated with ageing, these ‘safe limits’ are too high for older people; recent evidence suggests that the upper ‘safe limit’ for older people is 1.5 units per day or 11 units per week
- In older people, binge drinking should be defined as >4.5 units in a single session for men and >3 units for women
- Local policies regarding older people with substance use problems should be developed: access on the basis of need, elimination of age barriers, easy transfer between services, joint working and decisions regarding who will be the lead service in these circumstances, as well as protocols regarding admission for detoxification

## TRAINING

- Training about the impact of substance misuse on the older person is not an optional extra
- Training for all medical professionals should commence at undergraduate level, through specialist postgraduate education and continue as part of continuing professional development (CPD)

- Old age psychiatrists, addiction specialists and psychiatrists, geriatricians, as well as nursing, psychology, social care and other allied professionals should be suitably trained
- It is essential that health professionals have adequate knowledge of substance use disorders in older people; this includes being aware of associations with mental disorders and physical health problems, as well as vigilance over interactions between substances and both prescribed and over-the-counter medications
- Clinical skills in the areas of screening, assessing motivation to change substance using behaviours, as well as delivering brief interventions and social interventions to reduce relapse within a harm reduction model should be core competencies for health and allied health professionals
- Improved attitudes to older people with substance misuse in areas such as addressing stigma, therapeutic nihilism and social exclusion are required at individual, community and public health levels

## RESEARCH

- Examination of trends in the extent, nature and predictors of substance use problems in older people is required
- Standardised age-appropriate assessment and outcome measures that encourage comparability should be developed
- Effective interventions for adults should be evaluated and innovative treatments for older people developed
- Service models with a particular focus on long-term outcome should be developed and evaluated

## RECOMMENDATIONS AND FUTURE STRATEGIC DIRECTION

- 1 At a policy level, advocating for the inclusion of this issue in more substantive terms in all relevant policy documents. An initial step might be influencing policy makers to develop clinical guidelines through care pathways addressing the varied needs of older substance misusers.
- 2 At a public health level, developing a consensus on information for the public and healthcare professionals on drinking limits specifically for older adults and highlighting risks to health.
- 3 At the service delivery level, access to prevention and treatment should be enhanced by removing barriers, training of healthcare staff, use of valid screening instruments and developing closer working models – including innovative paradigms – between services at all levels.
- 4 At the treatment intervention level, exploring how to augment the cautious implementation of drug treatment interventions currently used for younger adults.

- 5 At the educational level, developing comprehensive training and education packages in conjunction with other medical Royal Colleges for professionals of different backgrounds.
- 6 At the research and development level, improving knowledge of the epidemiology of substance problems in various settings and developing an evidence base on effective treatments and service provision barriers from systematic research, audit and evaluation.
- 7 At the ethical level, developing, implementing and promoting service delivery based on need, but targeted in an age-appropriate way through multi-agency partnership is the way forward.

# Introduction

Both alcohol and illicit drugs are among the top ten risk factors for mortality and morbidity in Europe (European Commission, 2006) and substance misuse by older people is now a growing public health problem. Between 2001 and 2031, there is projected to be a 50% increase in the number of older people in the UK (Office for National Statistics, 2004). The percentage of men and women drinking more than the weekly recommended limits has also risen, by 60% in men and 100% in women between 1990 and 2006 (NHS Information Centre, 2009a). Given the likely impact of these two factors on health and social care services, there is now a pressing need to address substance misuse in older people.

This report has brought together a group of health professionals with expertise in substance misuse in older people, whose remit it has been to develop the existing knowledge base according to the following terms of reference:

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## *TERMINOLOGY*

The terms 'drug' or 'substance' will be used to cover licit substances, tobacco and alcohol, illicit substances, central nervous system depressants such as opiates and opioids (e.g. heroin and methadone), stimulants (e.g. cocaine, crack cocaine, amphetamines and 3,4-methylenedioxymethamphetamine, known as MDMA or ecstasy), lysergic acid diethylamide (LSD), khat and magic mushrooms. They will also be used in describing 'street' use, use of prescription drugs (e.g. benzodiazepines) in a manner not indicated or intended by a medical practitioner, and similar use of over-the-counter preparations such as codeine-based products (e.g. cough medicines, decongestants) or drugs bought over the internet.

Clinical experience and a growing literature base indicate that older people may use a combination of licit and illicit substances, as well as prescribed and over-the-counter medications taken in accordance with medical practitioners' instructions. This so-called 'polypharmacy', 'polydrug misuse' or 'polydrug dependence' is a particular issue in older people who have comorbid physical and psychological problems. Patients may be offered,

borrow or share out-of-date medications, take foods, and/or drugs and/or medications that interact, and store medications inappropriately. With increasing anxiety and poor memory, they may forget to report what they have taken, or simply forget that they have taken it at all. With the growing complexity of the range of substances available by a number of routes or means, this becomes a major risk faced by all medical teams (Crome & Ghodse, 2007; Crome & Bloor, 2008).

For the purpose of reaching a 'diagnosis', the two systems that have emerged are the International Classification of Diseases (ICD-10) (World Health Organization, 1992) and the Diagnostic and Statistical Manual (DSM-IV) (American Psychiatric Association, 1994). These should be administered thoughtfully and with clinical judgement, since there is some debate as to whether they can be applied to older people. These classification systems have similarities, but are not identical. In particular, DSM-IV diagnostic criteria for substance 'abuse' and 'dependence' may not be adequate to diagnose older adults with substance use problems, as they are based on knowledge of young to middle-aged adults. Frequency, quantity and pattern of consumption, which may be more appropriate considerations for assessing older adults, are not included in the criteria in either ICD-10 or DSM-IV (Oslin & Holden, 2001). Table 1 lists considerations that should be taken into account in using DSM-IV with older adults.

The prevalence of substance misuse among 'older' or 'elderly' people varies according to definitions of 'old' (usually over 65 years of age in the UK, but often as low as 40 in countries such as the USA) and of 'substance misuse' (Crome & Day, 1999). Nevertheless, there are considerable grounds for concern that there are unmet needs within communities and that problems are likely to increase.

In the case of opiate misuse, people aged 40 and over are regarded as 'older' (National Treatment Agency for Substance Misuse, 2010a). This

**Table 1 Applying DSM-IV diagnostic criteria for substance dependence to older adults**

<i>Criteria</i>	<i>Special considerations for older adults</i>
1 Tolerance	Even low intake may cause problems owing to physiological changes
2 Withdrawal	May not develop physiological dependence
3 Taking larger amounts or over a longer period than was intended	Cognitive impairment can interfere with self-monitoring
4 Unsuccessful efforts to cut down or control use	Reduced social pressures to decrease harmful use
5 Increased time spent obtaining substances or recovering from effects	Negative effects can occur with relatively low use
6 Giving up activities because of use	Decreased activities because of comorbid psychiatric and physical disorder Social isolation and disability making detection more difficult
7 Continued use despite physical or psychological consequences	May not know or understand that problems are related to use, even after medical advice Failure of clinician to attribute problems to alcohol or drug misuse

Adapted from Blow (1998).

is because opiate misuse has traditionally been seen as a problem mainly in people under the age of 40; now that many more opiate misusers are surviving for longer, 40 is used as a cut-off point to define the 'older' population (Crome *et al*, 2009).

## EPIDEMIOLOGY

The proportion of the UK population aged 65 years and over will increase in the next 20 years. Projection studies have estimated that the number of patients over the age of 50 who will require treatment for 'substance abuse' in the USA will increase from 1.4 million in 2000–2001 to 4.4 million in 2020 (Gfroerer *et al*, 2003; Colliver *et al*, 2006; Han *et al*, 2009). In 1995, 49% of the US 'baby-boom' cohort, then aged 31–49, had used illicit drugs during their lifetime, compared with 11% of those who were over 50 (Gfroerer *et al*, 2003). In the USA, the lifetime prevalence rates for dependence on illegal substances have been estimated to be 17% for 18- to 29-year-olds, 4% for 30- to 59-year-olds and 1% for the over-60s (Crome, 2005). This picture is mirrored in Europe and the UK, where estimates suggest that the number of people over 65 with a substance use problem or needing treatment will more than double between 2001 and 2020 (European Monitoring Centre for Drugs and Drug Addiction, 2008; NHS Information Centre, 2009b; National Treatment Agency for Substance Misuse, 2010a). It is likely that the consequences of improved healthcare of substance misusers have only recently become apparent in the increased prevalence of chronic substance use problems among older people.

## MORTALITY

Smoking tobacco is the largest cause of premature death in the UK, causing 106 000 deaths every year (Department of Health, 2006).

Strikingly, the number of deaths in the UK linked to alcohol more than doubled between 1992 and 2008, from 4023 to 9031, with the highest death rates found in men aged 55–74. Among women, those aged 55–74 had the highest alcohol-related death rates (Office for National Statistics, 2009a).

Deaths related to drug poisoning among people over the age of 40 have also increased since 2004 (Office for National Statistics, 2009b). Cohort studies have demonstrated a mortality rate in drug users between 12 and 22 times greater than that in the general population; older (over age 34) injecting drug users are between two and six times more likely than younger (under age 25) users to die from drug-related causes (Oppenheimer *et al*, 1994; Frischer *et al*, 1997; Bird *et al*, 2003).

Post-mortem findings from drug users often show a combination of methadone, opiates or benzodiazepines and sometimes alcohol. Although this association is maintained in older drug users, those aged 45 and over are more likely to die from self-harm or suicide, rather than accidental overdose (Ghodse *et al*, 2009). Underreporting may be associated with underestimation of drug-related deaths and with alcohol misuse as a contributing factor rarely being recorded on death certificates as a direct or indirect cause of death. Coroners in different areas also vary in the manner in which alcohol misuse is recorded on death certificates.

## ALCOHOL CONSUMPTION

Alcohol is now by far the most commonly misused drug by people of all ages. The price of alcohol relative to average UK income has halved since the 1960s, while per capita consumption of total alcohol has nearly doubled, from less than 6 litres a year in the early 1960s to over 11.5 litres a year in 2000. If this trend continues, the UK will become Europe's biggest per capita consumer of alcohol within a decade (Gupta & Warner, 2008).

A substantial percentage of older adults who drink consume above the recommended limits (Moos *et al*, 2009).

In 2008, 21% of older men reported drinking more than 4 units of alcohol on at least one day a week, and 7% more than 8 units; 10% of older women said they drank more than 3 units of alcohol on at least one day in the week, and 2% of this age group drank at least 6 units (NHS Information Centre, 2010). In comparison, in 2001, 18% of older men said they drank more than 4 units of alcohol on at least one day a week, and 5% drank at least 8 units; 5% of older women reported drinking more than 3 units of alcohol on at least one day in the week, and 1% of this group drank at least 6 units (National Statistics, 2003).

## DRUG MISUSE

During 2008/2009, 4.8% of over-45-year-olds in the UK reported use of any illicit drug in the previous year, and 0.7% reported use of a Class A drug within the previous year (Hoare, 2009). Although the number of people coming into treatment has fallen across all other age groups, it has been rising for people aged 40 and over since 2005–2006 (National Treatment Agency for Substance Misuse 2010a: p. 6). The main problem for this age group is heroin, either alone or in combination with crack cocaine. Only a quarter started using in the past 5 years, and 27% appear to have been using drugs for 25 years or more.

Consequently, there is likely to be an increased demand for specialist drug treatment services to cater for the needs of these patients as they age. This has been demonstrated in north-west England, where the proportion of over-45-year-olds attending services has increased from 6.4% in 2003/2004 to 10.1% in 2006/2007 (Benyon *et al*, 2007). Older patients receiving methadone maintenance treatment are more stable and more likely to have improved treatment outcomes than younger people (Firoz & Carlson, 2004). It should be noted that older methadone clients exposed to illegal drug use in their social networks and neighbourhoods in the past month were more likely to have used illicit drugs (Rosen, 2004).

## SMOKING

Although people over the age of 60 have the lowest prevalence of smoking, 13% of men and 12% of women in that age group smoke. This has reduced from 16% in 1998 (Seymour & Booth, 2010). Twenty-two per cent of people aged 50–59 still smoke, a reduction of 5% since 1998. It has been shown that people who are well into middle age when they quit smoking can avoid more than 90% of smoking-related lung cancer risk (Peto *et al*, 2000). Forty-four per cent of smokers aged 50 or over want to quit (Rimer *et al*, 1990), but some older smokers think that they cannot stop or that they have already caused so much damage that quitting would not be beneficial to their health (Appel & Aldrich, 2003).



## PRESCRIPTION DRUG MISUSE

Older people receive the highest proportion of the prescription medication dispensed in the UK, often as multiple prescriptions, and there is a 10% chance that it is potentially inappropriate (Gottlieb, 2004; McGrath *et al*, 2005; De Wilde *et al*, 2007). About a third of men and women over the age of 65 in private households take four or more prescribed medicines daily (Falaschetti *et al*, 2002). Over-the-counter availability (and different methods of obtaining medicines other than through legitimate channels) makes multiple analgesic drug use a particular problem. This may lead to poor pain control because of reduced tolerance, increasing dosage, abstinence syndrome and dependence (Chrischilles *et al*, 1990). This is compounded further by the use of prescription drugs such as codeine-based medications for pain or coughs and benzodiazepine tranquillisers or hypnotics for affective and anxiety disorders (Culberson & Ziska, 2008). Failure to adhere to prescribing instructions can cause a wide range of adverse effects (Balestrieri *et al*, 2005), including tolerance, withdrawal symptoms and compulsive use in the long term (Lingford-Hughes *et al*, 2004).

The prevalence of psychotropic drug misuse is four times higher in older women than older men and the risk of dependence is enhanced if the woman happens to be widowed, less educated, of lower income, in poor health and/or with reduced social support (Simoni-Wastila & Yang, 2006). Older women also show comparatively less drinking, smoking and illicit drug use than older men and people under 65, regardless of gender (Graham *et al*, 1995).

## PSYCHIATRIC COMORBIDITY

One in six people presenting in primary care with substance misuse is over the age of 50. In the over-50 age group, presentation is often complicated by the increased prevalence of comorbid physical and mental illnesses. In an epidemiological study of psychiatric illness and comorbid substance misuse in primary care, a 27% increase in comorbidity occurred in those aged 75–84 compared with an average 62% across all age groups. This increase was due to dependence on licit substances, i.e. benzodiazepines, and was associated with delirium (Frisher *et al*, 2005). This study demonstrates that there may be differences in rates of different types of comorbid condition in older people compared with younger people and further highlight the potentially deleterious cumulative effects of benzodiazepines – especially in combination with other substances such as alcohol. Psychiatric disorders predisposing to substance misuse may have been precipitated in early life by emotional, physical and sexual abuse.

The UK Office for National Statistics' study of psychiatric morbidity in the 16–74 age group (Coulthard *et al*, 2002) showed decreases in lifetime and past-year use of any illicit drugs from age 55 to 69, but an increase in the 70–74 age group, in keeping with Frisher *et al*'s (2005) data. Nine per cent of those in the 55–59 age group who had ever taken drugs had experienced an overdose, as had 5% of those over 60 who had ever taken drugs.

An American study reported that the prevalence of comorbidity declined significantly with age in a population in long-term contact with treatment services. In the survey of patients attending the Veterans Administration Hospital, 26.7% of patients under 65 years of age and 6.9% of those aged 65 and over still had comorbid psychiatric and substance abuse disorders (Prigerson *et al*, 2001).

## KEY MESSAGES

- The proportion of older people in the population is increasing rapidly, as is the number of older people with substance use problems
- Older people may show complex patterns and combinations of substance use (e.g. alcohol plus inappropriate use of prescribed medications)
- The standard diagnostic criteria for substance use disorders may not be applicable to older age groups
- Older people with substance use problems have high levels of unmet need
- Mortality rates linked to drug and alcohol use are higher in older people compared with younger people
- Although alcohol use does decline with age, a significant number of older people consume alcohol at dangerous levels
- Although illicit drug use is uncommon in the over-65 age group at present, there have already been significant increases in the over-40 age group. As this cohort ages we should anticipate a significant increase in the number of older people using illicit drugs
- Older people use large amounts of prescription and over-the-counter medication and rates of misuse (both intentional and inadvertent) are high, particularly in older women
- High rates of mental health problems in older people (including a high prevalence of cognitive disorders) result in frequent, complex psychiatric comorbidity accompanying substance use disorders

# Risk factors

## CASE VIGNETTE 1

Mr A, a 67-year-old White widower, was referred by his general practitioner (GP) to the community alcohol team for alcohol dependence after repeated falls. Following a period of controlled drinking during his 20s and early 30s, his alcohol use had escalated when his wife was diagnosed with post-natal depression and their children were taken into care. Over the years, further perpetuating factors included his wife's suicide and brother's death. He had no significant periods of abstinence from alcohol for over three decades. Mr A was aware of the association between drinking and falls, but considered alcohol helpful in dealing with chronic insomnia. He was under the care of psychiatric services and had been diagnosed with depression at the age of 36, when he had had psychological therapy and antidepressant medication. He had last seen a psychiatrist 10 years ago and had been prescribed an antidepressant by his GP before referral to the community alcohol team.

Mr A had regular motivational interviewing sessions with the community alcohol team and successfully completed in-patient detoxification. His mood improved considerably during his in-patient stay and he was discharged with a plan for follow-up by the community alcohol team, for relapse management and monitoring of his mood disorder. However, he disengaged from the services soon afterwards and was discharged from the team's care. However, the GP re-referred him after a few months, as family had become increasingly concerned about deterioration in his mood and physical health. Although he attended appointments at the clinic and his family was eager to admit him again for detoxification, he was certain that he would like to continue to drink and refused detoxification. He had been assessed as having capacity to make decisions regarding his treatment. While further motivational interviewing sessions were provided by the team, which he attended erratically, his mental and physical health deteriorated, with suicidal ideation and falls. As he refused admission or any intervention to address his alcohol problem and family repeatedly requested treatment against his will, input from the older adults psychiatric services was sought and a referral made. This was declined until the case was discussed individually with the consultant psychiatrist in the older adults team; Mr A was then jointly assessed at home by psychiatrists from the community alcohol team and older adults team. Joint work between the two teams was facilitated and he was later discharged to the care of older adults teams.

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CASE VIGNETTE KEY POINTS

- There is a recognisable association between major life events, psychiatric disorder and alcohol problems
  - Periods of relapse may occur against a background of long-standing comorbid mental health problems
  - Quick and effective response to depressive symptoms can be associated with improved treatment outcome
  - It is important to determine mental capacity of older people who are disengaging from services/treatment
  - Joint working between specialist addiction and elderly services can have a considerable impact on prognosis
- 

CASE VIGNETTE 2

Mr B is an 82-year-old Asian man living in his own home with wife, children and grandchild. He has chronic physical problems, which have necessitated numerous hospital admissions. There is a history of at least four decades of alcohol misuse. He lost his job in his late 50s because of his drinking. This is his first presentation to a specialist alcohol team, and it has come about because family can no longer cope with him. Risks include poor self-care, threatening his family members with a knife when they deny him access to alcohol, falling onto the bed of his grandchild when drunk, losing his way when out of the house and showing poor adherence to taking his 13 prescribed medications for physical illness. Following engagement with the community alcohol team, his care was discussed with the older adults team because of evidence suggestive of dementia. He was admitted to an inpatient detoxification unit, where a diagnosis of dementia was made, and he was subsequently referred to a day hospital for further assessment of the dementia. Social Services assessment was sought both to support the carers as well as to assess risk to the grandchild. Mr B remained abstinent from alcohol and engaged with the day hospital until he was discharged 3 months later. He was supported in the community by a clinical nurse specialist from the community alcohol team, jointly working with the older adults team. Mr B's family reported improved self-care and no further episodes of violence or aggression; he himself identified an improved financial situation and improved relationship with his family, who felt better able to support him in adhering to treatment for his physical illness.

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CASE VIGNETTE KEY POINTS

- Sociocultural issues have a bearing on risk, particularly the risk to Mr B's grandchild
  - Mr B's chronic physical ailments may have masked long-standing alcohol problems and delayed presentation to specialist alcohol services
  - Non-adherence in taking a large number of prescribed medications posed risks for physical health
  - Joint work between specialist services led to a diagnosis of dementia, extended interventions and a favourable treatment outcome
-

## ALCOHOL MISUSE

The alcohol misuse literature shows that it is important to identify histories and effects of drinking among older people.

### *LONG-TERM MISUSE (DRINKING FROM AN EARLY AGE)*

- Early-onset drinkers have had alcohol-related problems over several decades and have survived into old age. It is estimated that two-thirds of older drinkers fall into this category. Various studies have demonstrated that, typically, this group have often been arrested for intoxication, have family histories of alcoholism, greater levels of depression and anxiety, and have changed residence more frequently. It has been suggested that they feel loneliness and depression after years of alienating significant others and age-related loss (Schonfeld & Dupree, 1994).

### *LATE-ONSET MISUSE*

- Late-onset misuse may be milder, more circumscribed, have a lower genetic component, a stronger association with stress/adverse life events (such as bereavement) and higher socioeconomic status, female preponderance and better prognosis. Late-onset drinkers usually begin drinking in their 50s or 60s. A conglomeration of different studies indicate that this group are more motivated to change their drinking habits, more likely to complete treatment and have greater life satisfaction. Stressful life events and losses are common in this group: Glatt (1978) demonstrated that 70% of late-onset drinkers had had stressful life events, compared with 25% of early-onset drinkers. However, the former had greater psychological stability and better attendance at treatment.

## ALCOHOL AND COGNITIVE IMPAIRMENT

- The relationship between alcohol use and cognitive impairment in older people is complex. Heavy, prolonged alcohol use may increase the risk of developing vascular dementia and Alzheimer's disease, and may have indirect effects on neuronal function through decreased absorption of thiamine (vitamin B<sub>1</sub>), resulting in the development of organic amnesic states (e.g. Wernicke–Korsakoff syndrome).
- Alcohol may also have a direct neurotoxic effect, producing 'alcoholic dementia', although the validity of this concept remains controversial (for a discussion see Atkinson (2002) and Gupta & Warner (2008)).
- Irrespective of the underlying pathophysiology, there is no doubt that the management of alcohol misuse in patients with cognitive impairment/dementia presents a significant clinical challenge.

## RISK FACTORS FOR SUBSTANCE MISUSE IN GENERAL

Risk factors relating to substance misuse in older people can be classified in a number of ways, including biological/physical, psychological and social factors (O'Connell & Lawlor, 2008), or predisposing, precipitating and maintaining factors. Atkinson (2002) grouped them into predisposing factors (family history, previous substance misuse, personality), factors that may increase exposure to/consumption of substances (e.g. chronic painful illness, insomnia, long-term prescribing, stress, loneliness, depression, substance availability, finances) and factors that may increase the effects and misuse potential of substances (pharmacokinetic and pharmacodynamic factors, chronic medical conditions and use of other medication).

A family history of alcohol or substance misuse is a risk factor for early-onset substance use disorders and may be related to genetic factors, which may in turn overlap with genetic factors predisposing to other psychiatric conditions. The relationship between substance use disorders and mental health problems such as depression and anxiety is complex and the direction of causality is often in doubt (e.g. does increased alcohol intake result from 'self-medication' in depression, or is the depression secondary to high levels of consumption?). It has been suggested that late-onset alcohol misuse is associated with 'neurotic' and 'depressive' personality traits (Mulder, 2002).

In general, men are at greater risk of developing substance use disorders. Although this is true for both alcohol and illicit drugs in older people, it is older women who are at highest risk of developing problematic use of sedative/hypnotic and anxiolytic medication.

Another factor relevant to the development of substance use disorders in older people is chronic illness that leads to the long-term prescription of strong analgesics and medication to manage symptoms such as pain, insomnia and anxiety. The presence of underlying medical conditions, age-related changes in liver and renal function, and interactions between multiple medications may also place older people at higher risk of developing substance-related problems, even at relatively low levels of consumption. Over-use of 'as required' medicines, either by the patient or by paid carers or family members, may be an additional factor. Although many older people live in relative poverty, a substantial number of retired people have significant disposable income and leisure time, which can contribute to the development of alcohol problems.

Loss of support over the long term owing to loss of occupation, income, skills or function, earlier marital breakdown, inadequate social networks, loneliness and isolation due to bereavement or retirement may affect use. There are indications that social factors influence outcome in late-life drinkers. Schutte *et al* (2003) followed the progress of 447 older former problem drinkers over 10 years and compared them with a group of lifetime non-problem drinkers. They found that 1.6 times more former problem drinkers died over the 10-year period than non-problem drinkers. Although most of the former problem drinkers continued to drink alcohol, they did so at levels below those of the lifetime non-problem drinkers. Risk factors for relapse among the former problem drinkers were a less severe drinking history, heavier baseline alcohol consumption and lower baseline income. The authors noted that, despite improvements in functioning, the former problem drinkers continued to have greater financial, health-related and life-context deficits compared with the lifetime non-problem drinkers. They

concluded that drinking history is as valuable as current drinking behaviour when considering alcohol consumption by older people, and that the long-term effects of problem drinking on finances, health and lifestyle persist, even when remission is maintained.

## *PSYCHOSOCIAL RISK FACTORS FOR ALCOHOL MISUSE*

Most alcohol misuse problems among older people are dealt with in primary care. Particular risk factors for alcohol misuse have been identified, including homelessness, bereavement, retirement and depression. In the UK, 40% of older homeless men are known to be heavy drinkers or to have alcohol-related problems. The problems are most pronounced among men in their 50s. The majority of these men are White British or Irish, with only a small proportion from minority ethnic groups (Crane, 1998; Crane & Warnes, 2001).

The relationship between bereavement and alcohol misuse is complex. In a cohort study of male community residents aged 65 years and over, recently widowed men were assessed at 6 weeks, 6 months and 13 months after bereavement and age matched with married men who were followed up at the same time intervals. Although similar proportions of older widowers and married men reported drinking alcohol, recently widowed older men reported significantly greater frequency and quantity of alcohol consumption than married men: 19% of widowers and 8% of married men reported drinking five or more standard drinks per drinking day (Byrne *et al*, 1999). However, this finding is at odds with a study in Liverpool reporting no significant difference between the rates of regular drinking among married men and men who had been widowed 3 years earlier (Saunders *et al*, 1989). It is possible that the excess alcohol consumption of recently widowed older men diminishes after the first year following bereavement. Using a longitudinal approach, a study examining the impact of negative life events on alcohol consumption among 2040 men and women aged 65 and over found that, in men who were married at baseline, death of a spouse did not independently predict change in alcohol consumption. However, there was a significant interaction effect between death of a spouse and baseline alcohol consumption, with men who consumed greater amounts of alcohol at baseline being more likely to increase their alcohol consumption following bereavement (Glas *et al*, 1995). It would appear that conjugal bereavement in men increases the risk of alcohol misuse in established drinkers.

Retirement is an important landmark during a lifetime. In a long-term follow-up of men who had successfully completed a behavioural treatment programme for alcohol problems when they were over 60 years of age, participants were contacted between 2 and 4 years after the end of treatment. It was found that 71% of those who had not yet retired when successfully treated for late-onset abuse began drinking heavily again when they did retire (Carstensen *et al*, 1985). This finding has been replicated elsewhere (La Greca *et al*, 1988). However, the effect of reverse causality on the relationship between alcohol misuse and retirement cannot be overlooked, with evidence that men showing existing problems with alcohol misuse are more likely to retire than men without such problems (Bacharach *et al*, 2004). An understanding of different trajectories among older substance misusers may help in directing treatment towards those affected more severely (Jacob *et al*, 2009).



## KEY MESSAGES

- Late-onset substance misuse has different aetiological and demographic associations, and probably a better prognosis, than early-onset misuse
- In older people, the relationship between cognitive function and substance (particularly alcohol) use is complex, as is that between functional mental health problems (e.g. anxiety and depression) and substance use. The direction of causality is often unclear
- Older men are at greater risk of developing alcohol and illicit substance use problems than older women. However, older women have a higher risk of developing problems related to the misuse of prescribed and over-the-counter medications
- Physical health problems and the long-term prescription of medication (especially hypnotics, anxiolytics and analgesics) are important factors in the development of substance misuse in older people
- Psychiatric comorbidities of substance misuse are common in older people (including intoxication and delirium, withdrawal syndromes, anxiety, depression and cognitive changes/dementia)
- Among older people, psychosocial factors (including bereavement, retirement, boredom, loneliness, homelessness and depression) are all associated with higher rates of alcohol use

# Effects and complications

A detailed review of the physical and psychiatric complications of substance misuse by older people is beyond the scope of this report. A comprehensive account of such complications can be found elsewhere (e.g. Crome & Day, 2002; Crome & Bloor, 2005b).

## PHYSICAL COMPLICATIONS

The most common problems related to substance misuse by older people are the cardiovascular and respiratory problems associated with smoking and alcohol, both exacerbated by lack of exercise. The biggest problem by far is alcohol misuse, as older drug users also move from illicit drugs to use of alcohol or of both substances. Since about 50% of intravenous drug users have hepatitis C, liver disease advances rapidly. There is a high level of lung disease, particularly chronic obstructive pulmonary disease (COPD) secondary to long-term smoking of tobacco, crack cocaine and heroin. There is early morbidity with co-infection of hepatitis B and C.

Older people are particularly at risk from the harmful effects of substances because of polypharmacy (Crome, 2005) and altered metabolism (Dunne & Schipperheijn, 1989). As people age, there is a fall in the ratio of body water to fat, decreased hepatic blood flow and inefficiency of liver enzymes. The responsiveness of the brain alters, so that alcohol produces a more rapid depressant effect, resulting in, for example, impaired coordination and memory.

Apart from the direct effects of drugs on general health, there are indirect effects such as dietary neglect due to impoverishment, depression and isolation. Malnutrition, for instance, may result from drug-induced anorexia, malabsorption and/or economic deprivation. Liver dysfunction associated with, for example, HIV, hepatitis B and C, produces psychological as well as physical problems.

The presentation of such problems can be subtle or non-specific and underdiagnosis and/or underreporting may therefore have contributed to unreliable estimates of the level of problems associated with substance misuse (O'Connell *et al*, 2003). One Australian study found low levels of detection and appropriate onward referral to specialist services of older substance misusers by medical staff, some of whom believed that 'to give up established habits is inappropriate' (McInnes & Powell, 1994).

## PSYCHIATRIC COMPLICATIONS

The co-occurrence of psychiatric disorder and substance misuse (dual diagnosis) can have a range of differing psychological effects, including those caused by intoxication and withdrawal (Banerjee *et al*, 2001; Crome & Day, 2002; Day & Crome, 2002; Waller & Rumball, 2004). Chronic use, intoxication with depressant drugs and withdrawal from stimulants produce symptoms similar to those of depressant drugs, including suicidal intent. Acute intoxication with stimulants or cannabis may mimic a schizophrenic illness. Withdrawal from depressant drugs may result in symptoms of anxiety, panic and even confusional states. These complex interactions have implications: not only does drug use interfere with emotional, cognitive and social behaviour, but the combination of disorders results in poorer treatment adherence and poorer short- and longer-term outcome.

The interrelationships between physical health, mental health and drug misuse are well documented. Psychiatric conditions such as anxiety, depression, post-traumatic stress disorder, drug-induced psychosis, schizophrenia, delirium and dementia may lead to, be a consequence of, or coincide with drug misuse. Delirium is associated with withdrawal from barbiturates and benzodiazepines, but delirium and dementia are also associated with factors such as head injury and serious infection. The differing mechanisms and types of relationship demand careful history-taking and judicious interpretation. Among older people, depression, dementia, delirium and a heightened risk of suicide are probably the problems most commonly faced by clinicians. Of course, some of these conditions are associated with chronic pain and sleep disorders, which may make patients vulnerable and cause them to seek relief in inappropriate use of prescription and non-prescription medications.

### KEY MESSAGES

- Because of physiological changes associated with ageing, older people are at increased risk of adverse physical effects of substance misuse, even at relatively modest levels of intake
- Alcohol and tobacco use have the greatest impact in population terms on physical health, affecting many systems (including the cardiovascular, gastrointestinal, neurological and respiratory systems)
- Presentation can be subtle or non-specific and the aetiological role of substance use in physical conditions is frequently overlooked
- Psychiatric comorbidities of substance misuse are common in older people (including intoxication and delirium, withdrawal syndromes, anxiety, depression and cognitive changes/dementia)

# Assessment of substance misuse in older people

## CASE VIGNETTE 3

Mr D, a 72-year-old retired teacher, had been living alone in his own house since the death of his wife 3 years ago. He was referred to old age psychiatry services because of progressive memory changes over approximately 2 years. Other concerns included deteriorating self-care, poor appetite, weight loss and several falls. His daughter commented that he had episodes when he appeared much more muddled and that he was still driving, which caused her great concern.

Mr D was assessed at home with his daughter present, and was found to have a mild to moderate degree of cognitive impairment (Mini-Mental State Examination (MMSE) score of 20 out of 30) and the clinical picture was felt to be consistent with a diagnosis of Alzheimer's disease. Mr D was unwilling, or unable, to give a clear account of his current level of alcohol intake. His daughter said that Mr D's drinking had gradually increased since the death of his wife and she thought that he was probably consuming at least one bottle of wine a day. She had repeatedly asked her father to cut down his drinking, but to no effect (he was still buying his own alcohol from the local supermarket). The kitchen contained several empty wine bottles, as did the dustbin. There was no evidence of physical dependence, but his psychiatrist felt that his drinking was undoubtedly contributing to his episodes of more marked impairment and falls.

Mr D surrendered his driving licence and his daughter began to do the shopping and refused to buy alcohol for him. Initially, his cognitive state improved slightly and he put on some weight. After a few months, he deteriorated and started falling again; it was noted that significant amounts of money were missing from his bank account, as a neighbour had started buying alcohol for Mr D and had been taking financial advantage of him. Vulnerable-adult protection procedures were instigated and the police became involved. As Mr D now lacked the capacity to manage his affairs, and had not previously made a lasting power of attorney, an application to appoint a receiver was made to the Court of Protection. Unfortunately, Mr D continued gradually to deteriorate and was eventually placed in residential care.

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## CASE VIGNETTE KEY POINTS

This case illustrates several points regarding the assessment and management of alcohol problems in people with cognitive impairment:

- the value of taking a history from an informant

- the value of home assessment (allows inspection of the environment for evidence of alcohol use)
  - the enhanced effects of alcohol in people with underlying cognitive impairment (including worsening cognitive function and falls)
  - significant improvement can occur if people stop drinking
  - a particular vulnerability to exploitation
  - if patients are found to lack capacity in particular areas (e.g. management of finances) then one should follow the principles of the Mental Capacity Act 2007 and take decisions that are in their best interests
- 

#### CASE VIGNETTE 4

Mr C was admitted to a care home and was on a low dose of methadone. He accepted the decision to withdraw his methadone over the course of a few weeks. Before closing the case, the care coordinator was asked to visit Mr C at the nursing home and, if possible, obtain a urine test. On visiting, the patient was assertive that he did not need any further visits or follow-up as he was now doing well. This was confirmed by a urine test that was negative for all substances – apart from cocaine!

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#### CASE VIGNETTE KEY POINTS

- Substance misuse can occur at unexpected stages in older users, even in in-patient care
  - Families can be complicit in substance misuse
  - Individuals can hide and deny illicit drug use when least expected
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## BARRIERS AND OBSTACLES – ‘IF YOU DON’T THINK ABOUT IT, THEN YOU WON’T SEE IT’

Full assessment of a patient entering a substance misuse unit is often carried out over a number of interviews and examinations and may amount to several hours. Engagement of older patients often requires a degree of common sense and change in policy. For moderate- to long-term retention in treatment, making the patient welcome, listening and being empathetic may be more important than simply gleaning information.

The lack of awareness and knowledge regarding alcohol and substance use disorders in older people is a major barrier to detection and diagnosis (Table 2). The traditional view that alcohol misuse is uncommon in older people and that the misuse of other substances is very rare means that clinicians fail to ask about misuse and also leads them to overlook or discount evidence of such problems. Stereotyped views regarding ‘typical’

**Table 2 Barriers to identification of substance misuse in older people**

<i>Practitioner barriers</i>	<i>Individual barriers</i>
Ageist assumptions	Attempts at self-diagnosis
Failure to recognise symptoms	Symptoms attributed to ageing process or other illness
Lack of knowledge about screening	Many do not self-refer or seek treatment
Discomfort with topic	Perceived stigma of the word 'addiction'
Lack of awareness of substance misuse in older people ('If you don't think about it, you won't see it')	Reluctance of patients to report – shame, denial, desire to continue using, pessimism about recovery
Misuse traditionally considered to be rare in old age	Cognitive problems – substance-induced amnesia, underlying dementia
Symptoms may mimic or be hidden by symptoms of physical illness	Unwillingness to disclose
Unwillingness to ask	Collusion of informant(s)
Absence of informants	

profiles of alcohol and substance misusers hinder accurate identification. For example, binge drinking, rather than chronic heavy drinking, occurs in 14% of men and 3% of women aged over 65 (Blazer & Wu, 2009).

Signs and symptoms of substance misuse may be mistakenly attributed to other physical or mental health conditions, or may be masked by the presence of other illnesses. Thus, an underlying substance use disorder may be missed unless a high degree of clinical suspicion is maintained.

Physical symptoms that should trigger screening include the following (Blow *et al*, 1998):

- sleep complaints
- cognitive impairment, memory or concentration disturbance
- seizures, malnutrition, muscle wasting
- liver-function abnormalities
- persistent irritability without obvious cause
- unexplained chronic pain or other somatic symptoms
- incontinence, urinary retention
- poor hygiene and self-neglect
- unusual restlessness and agitation
- complaints of blurred vision or dry mouth
- unexplained nausea and vomiting
- changes in eating habits
- slurred speech
- tremor, poor motor coordination, shuffling gait
- frequent falls and unexplained bruising.

Clinicians may be embarrassed to ask about substance use, and patients, relatives and carers may be reluctant to reveal information for a variety of reasons, including shame, denial or a desire to continue using the

substance in question (Table 2). Assessing levels of consumption in patients with cognitive impairment, especially in the absence of a reliable informant, is particularly problematic. Screening instruments may not be appropriate for an older population, and criteria such as 'safe limits' (see pp. 35–36) for alcohol consumption may be set too high to be of valid use with elderly people. The belief that 'nothing can be done' because of the person's age, or that it would be 'cruel' to take away an activity that appears to provide some degree of comfort, may be other factors that result in the under-diagnosis and under-treatment of such problems in older people. Even when misuse is detected and diagnosed, elderly people are less likely to be given adequate treatment or to be referred to specialist services (O'Connell *et al*, 2003). Possible explanations for this are that, in some localities, they are excluded from specialist treatment on the basis of age or that facilities are not available in their area.

## SCREENING TOOLS

Screening should never be considered as a substitute for a thorough clinical assessment. However, appropriate screening tools can be useful in identifying patients at high risk, who should then be comprehensively assessed (Table 3). To the best of our knowledge, all of the literature regarding screening for substance use disorders in older people relates to alcohol, mainly using self-report instruments developed for use in younger populations (although some have been adapted for older people). It is important that screening for substance misuse in older patients is undertaken using age-appropriate instruments, if available, or that if the instruments standardised on working-age adults are used then this is taken into account (Beresford, 2000).

The utility of alcohol screening tests with older people has been systematically reviewed, both for in-patient populations (O'Connell *et al*, 2004) and in primary care (Berks & McCormick, 2008). The general conclusions of these reviews are that, although the CAGE questionnaire (Ewing, 1984) is well-known and quick to perform, its primary purpose is in detecting alcohol dependence and it is relatively insensitive to harmful/hazardous drinking. The CAGE has been validated in samples of older people, but in one study up to 60% of older people at risk of alcohol dependence in a community sample were CAGE-negative (Adams *et al*, 1996). Therefore, if the CAGE is used, it should be combined with careful assessment of current consumption.

**Table 3 Goals and rationale for screening older people for alcohol problems**

<i>Identification goals</i>	<i>Rationale</i>
Low-risk drinking (less than 21 units per week for men and less than 14 units per week for women)	Incidence is high enough to justify routine screening
Hazardous drinking (22–50 units per week for men, 15–35 units per week for women)	Adverse effects on health and quality of life may be significant
Dependent drinkers (more than 50 units per week for men, more than 35 units per week for women)	Effective treatments exist
Need for further assessment and treatment	Available treatments are cost-effective



The Short Michigan Alcoholism Screening Test – Geriatric version (SMAST-G; Blow *et al*, 1998) has been validated for use in older hospital in-patients (Joseph *et al*, 1995). It is longer than the CAGE and not as well-known but it may be useful in specialist settings.

The Alcohol Use Disorders Identification Test (AUDIT) is a 10-item self-report questionnaire developed to identify both alcohol dependence and hazardous use in adults (Saunders *et al*, 1993). Various adaptations have been made and tested in older populations. These include the AUDIT-5, a five-item version of the full AUDIT (Piccinelli *et al*, 1997) and the AUDIT-C, which asks only the three alcohol consumption questions of the full AUDIT (Bush *et al*, 1998).

A study comparing the MAST-G and AUDIT with the Alcohol-Related Problems Survey (ARPS) and the Short Alcohol-Related Problems Survey (shARPS) reported that the ARPS has some advantages over the MAST-G in older patients in a primary care setting (Moore *et al*, 2002).

Given the paucity of specific instruments for screening for alcohol problems in older people, the use of a combination of methods is advised (Reid *et al*, 2003). Existing screening tools can increase the detection of alcohol problems in this population, but a more comprehensive framework for assessing and managing alcohol- and drug-related problems is recommended and is a useful way of formulating the assessment process, as it translates into specific management plans (Raw *et al*, 1998).

## ASSESSMENT

The key to appropriate management is the taking of a thorough history (Crome & Bloor, 2005a,b, 2006; Crome & Ghodse, 2007), although clinicians may be reluctant to observe this degree of rigour in assessing older people. They may lack confidence in what to ask and experience or support in what to do; they may rationalise older people's substance use (e.g. 'Drinking is all they've got') or deny that the problem exists in this age group. Of course, older people and their relatives may be reluctant to disclose and/or may not realise the extent of the problem.

Assessment should include a full history (including a collateral history from a suitable informant), mental state examination, physical examination and further appropriate investigations. The assessment will need to cover current and past levels of substance use, frequency of use and quantity of substances taken, route of ingestion, evidence of withdrawal symptoms and other features of physical and psychological dependence, context of use, and the physical, psychological and social consequences of prolonged use. Questions will need to be phrased in a sensitive, non-judgemental fashion. It is often helpful to ask questions that address the presence or absence of ICD-10 or DSM-IV diagnostic criteria for harmful use, dependence and withdrawal (O'Connell & Lawlor, 2008).

It is particularly important to consider alcohol and other substance misuse in patients who repeatedly present with unexplained falls and fluctuations in their physical or psychological state, or in patients who do well in hospital only to relapse again on their return home.

A simple model, which has a similar approach to that of the five-phase framework (Ask, Assess, Advise, Assist, Arrange: see Appendix 1), has been used with older patients with substance use problems (Kaempf *et al*, 1999). During all phases, close attention should be paid to the appropriateness of

various options for the particular individual, i.e. they should be 'tailor-made' where possible (U.S. Department of Health and Human Services, 2005).

There are clear associations between substance misuse (particularly alcohol) and a variety of physical conditions, including: liver disease, hypertension, diabetes, falls, cognitive changes, depression, self-harm and incontinence. However, these associations can be very non-specific and difficult to pick up. Alcohol (or other substance) misuse should always be considered as a possibility in patients presenting with these problems. Conversely, a full physical and mental state assessment focusing on these areas should be performed in any patient suspected of misusing alcohol or other drugs. Often, further investigations (such as urine or breath tests, blood alcohol levels, full blood count (FBC), mean corpuscular volume (MCV), urea and electrolytes (U&Es), liver function tests (LFTs), vitamin B<sub>12</sub> and folate levels) will be required. If clinically indicated, more specialised investigations such as neuroimaging studies or screening for blood-borne viruses may have to be considered (O'Connell & Lawlor, 2008).

In the case of illicit drug use, urine testing is a useful objective measure, although the window for detection in the urine is often brief. The use of a breath alcohol meter in the clinical setting provides valuable evidence of inappropriate alcohol levels and can aid diagnosis of a dependence syndrome (Han *et al*, 2009).

## KEY MESSAGES

### Screening

- Screening should be user-friendly and take account of sensory, cognitive, environmental and other specific needs (e.g. cultural background and ethnicity)
- General practitioners should screen every person over 65 years of age for substance misuse as part of a routine health check, using specific tools such as the SMAST-G; screening should also incorporate cognitive testing using tools such as the MMSE
- Re-screening should be carried out if certain physical and/or psychological symptoms are present or if the person is experiencing major life events
- Questions should be linked to medical conditions or health concerns

### Assessment leading to a diagnosis of dependence

- Although applying the standard diagnostic criteria for substance use disorders is useful, it should be noted that sometimes they may not be appropriate for older people
- Patients who repeatedly do well in hospital and badly at home, those with unexplained 'ups & downs' in health presentation, those with inconsistencies and contradictions in the history and presentation are of particular concern

### Physical assessment

- Association of substance misuse (particularly alcohol) and conditions such as liver disease, hypertension, diabetes, falls, cognitive problems, depression, self-harm, incontinence (often not a readily apparent association) indicates specific physical investigations
- Useful standard investigations: FBC, MCV, B<sub>12</sub> and folate, LFTs, urine/blood/breath alcohol levels and/or drug screens
- Special investigations: neuroimaging, blood-borne virus screening if indicated

# Treatment of addiction

It is important to note that many of the drugs used in the treatment of addiction are not used in everyday clinical practice by either old age or addiction psychiatrists for patients over the age of 60. However, it is vital to point out that older people can and do benefit from treatment.

The Mesa Grande project from the USA (Miller & Wilbourne, 2002) is the largest systematic review of controlled trials comparing treatment for alcohol use disorders, but it does not provide evidence for treatment outcomes specifically for the over-65s. Similarly, other UK-based observational and analytical studies of drug and alcohol treatment outcomes have not included older adults.

There is a vast literature on pharmacological and psychological treatments for adult substance misusers, from which evidence-based guidance and numerous consensus statements have resulted (Lingford-Hughes *et al*, 2004; National Collaborating Centre for Mental Health, 2007a,b; National Institute for Health and Clinical Excellence, 2007a,b). A detailed discussion of these is beyond the scope of this report, but the list of online resources in Appendix 4 and the reference list should direct readers to related documents and organisations. Appendix 2 offers a summary of the guidance from some of these sources.

The National Institute for Health and Clinical Excellence (NICE) has issued no guidance on the treatment of substance misuse in general or opiate dependence in particular in older people (National Collaborating Centre for Mental Health, 2007a,b; National Institute for Health and Clinical Excellence, 2007a,b). The studies on which its recommendations are based usually exclude those over 65 (sometimes even those over 50), as well as those with physical and psychiatric comorbidity. The Department of Health's guidelines on drug misuse and dependence include a brief section on older addicts (where the older patient is defined as 40+ years), but little specific detailed information on management is provided (Department of Health, 2007). The National Service Framework for the care of older people does not discuss addictions and substance misuse (Department of Health, 2001).

In a literature review carried out to determine whether there is evidence to support the treatment of substance misuse in older people and to identify which treatments, if any, are appropriate for this population (Moy *et al*, 2011), older people were defined as those aged 50 and above. Sixteen studies were found to fit the inclusion criteria and were categorised according to the British Association for Psychopharmacology consensus statement (Lingford-Hughes *et al*, 2004). Eleven studies related to alcohol misuse (Dupree *et al*, 1984; Fleming *et al*, 1999; Blow *et al*, 2000; Gordon *et al*, 2003; Lemke & Moos, 2003a,b; Oslin *et al*, 2002, 2005; Satre *et al*, 2003, 2004a,b), three to nicotine dependence (Vetter & Ford, 1990; Morgan *et al*, 1996; Schroeder *et al*, 2006), one to opiate dependence (Firoz &

Carlson, 2004) and one to dependence on prescription medications (Brymer & Rusnell, 2000).

Moy *et al* (2011) report that, despite the current and potential future impact of substance misuse on an ageing population, little research is being conducted into the treatment of substance misuse in older patients. They conclude that the evidence to date indicates that, if treated, older people do not have worse outcomes than their younger counterparts and in some cases even do slightly better. It does appear that older people can respond to treatments that have been developed and tested in younger populations. Standardisation of age range, diagnostic tools and assessment instruments, treatment options and style of delivery would enhance comparability.

A study by Brennan *et al* (2003) indicated that access of older substance misusers to specialised out-patient mental health services was similar to that of younger patients and that they showed better outcomes. Older patients were less likely to be experiencing drug problems and psychiatric problems, but were more likely to report alcohol and medical problems. This equality of access was despite the fact that older people perceived the relative importance of treatment for psychological problems to be less than did younger people. The authors raise the interesting question of whether older people are more robust than younger people or whether there is a cohort effect in accepting that psychological factors play a role in both aetiology and recovery.

In this context, a meta-analysis of brief interventions for problem drinking (Cuijpers *et al*, 2004) demonstrated that they appear to reduce mortality. This has far-reaching implications for public health measures and the role of primary care and, potentially, has application to the drug-misusing population. It should be noted that key components of brief interventions include therapist characteristics (e.g. development of a therapeutic alliance, competence, adherence to treatment plan); user characteristics (e.g. culture, ethnicity and gender); and setting (e.g. whether conditions are optimal for the purpose) (National Treatment Agency for Substance Misuse, 2006).

Satre *et al* (2004a) conducted a comparative study of the 5-year outcomes of a group of older adults (aged 55–77) v. younger and middle-aged people after alcohol and drug treatment. They found that the older adults were less likely to be drug dependent at baseline than younger (aged 18–39) and middle-aged (aged 40–54) adults, and had longer retention in treatment than younger adults. At 5 years, older adults were less likely than younger adults to have close family or friends who encouraged alcohol or drug use. Fifty-two per cent of older adults had been totally abstinent from alcohol and drugs in the past 30 days v. 40% of younger adults. Older women had higher 30-day abstinence rates than older men or younger women. Thus, although older adults had a favourable long-term outcome, these differences may be accounted for by variables associated with age, such as type of substance, retention in treatment, social network or gender. These results provide valuable information on which to base service provision for older people: for example, persistence in treatment has long-lasting benefits, adequate social support is important, and family and friends are less likely to encourage substance use.

The treatment of substance misuse in older people also needs to take account of comorbid physical problems such as neuropsychiatric disorders and hepatic complications (e.g. alcoholic liver disease and hepatitis C), as well as respiratory complications such as chronic obstructive pulmonary disease (COPD). Clinicians should discuss with patients options and plans for terminal and palliative care and end-of-life treatment.

Most pharmacological agents should be used with caution, as pharmacokinetic and pharmacodynamic considerations mean an inevitable dosage reduction and careful monitoring in older people.

We are unaware of any specific guidance on the use of acamprosate, naltrexone, disulfiram, methadone or buprenorphine with older people. Addiction psychiatrists initiating treatment in older people should therefore work jointly with old age psychiatrists and/or geriatricians and frequently monitor treatment.

## COST-EFFECTIVENESS

Treating people with alcohol use disorders is cost-effective. For every £1 spent on treatment, the public sector saves £5. Providing alcohol treatment to the 10% of the population with dependent drinking in the UK could reduce costs by between £109 million and £156 million each year (South West Public Health Observatory, 2008). There are no comparable data confined to older people so the cost-effectiveness of treatment for substance misuse in this population remains to be evaluated.

### KEY MESSAGES

- There is a paucity of UK-based research and evidence for treatment interventions and services relating to the management of substance use disorders in older people
- Older people can and do benefit from treatment and in some cases have better outcomes than younger people
- Treatment of alcohol misuse in older people appears to reduce mortality
- Treatment of coexisting physical conditions (including chronic conditions such as hepatitis C and chronic obstructive pulmonary disease) and psychological conditions is a very important part of management
- Close liaison between all professionals, disciplines and agencies involved in the care of the patient is very important

## FAMILY AND CARERS

There is little literature concerning carers of older people with substance misuse. However, there are two relevant points to highlight. First, carers are central to the detection of alcohol misuse and the majority are aware of referral pathways (Wesson, 1992). However, their apparent lack of awareness of alcohol as a causative or contributing factor may result from their reluctance to judge the role of alcohol in the life of the person for whom they care. Second, the risk to older people from other older and younger people with alcohol misuse has potentially serious consequences for safeguarding older drinkers, who are already vulnerable to abuse (Homer & Gilleard, 1990; Reay & Browne, 2001).

#### CASE VIGNETTE 5

Mrs E is an 81-year-old widow living in sheltered accommodation. She was referred to the specialist community alcohol team by the older adults team, to whom she had originally been referred by her GP. She suffered from recurrent depressive disorder and her GP had prescribed an antidepressant as well as sedatives. Mrs E's relationship with her daughter was strained and there were concerns about her safety after she was found walking the streets in her nightdress in the early hours of the morning. She had previously sustained injuries following falls and, 6 years earlier, had consulted a neurologist for 'resting tremor and cogwheel rigidity'. Mrs E reported a 5-year history of alcohol dependence following her husband's death. After admission for in-patient alcohol detoxification, she was referred to the older adults psychiatric team, but the referral was not accepted. She was therefore supported in the community by the community alcohol team before discharge to her GP. The GP re-referred Mrs E after a matter of weeks, following concerns regarding her safety secondary to falls and cognitive impairment. There was deterioration in the relationship with her daughter, who had distanced herself from her mother's care. A re-referral to the older adults team was declined. Social Services input was sought and put in place. This included attendance at a day centre and input from a home care service, following which Mrs E was again discharged to her GP.

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#### CASE VIGNETTE KEY POINTS

- Changes in social circumstances such as bereavement may be powerful precipitants of alcohol misuse
  - There may be problems in joint working between specialist teams, particularly where patients 'fall through' gaps in service provision
  - The inclusion of social (including family) support in the treatment package is an essential factor in reducing harm and improving health and social function
- 

#### CASE VIGNETTE 6

Mrs F is a 66-year-old living with her partner (aged 52). Both have been on stable methadone maintenance for over 10 years (Mrs F was prescribed a daily dose of 80mg) and were being managed through a shared-care arrangement between their GP and the local drug and alcohol service. Mrs F was referred to old age psychiatry services because of concerns regarding her cognitive state. On assessment she was found to have significant impairment (MMSE score of 16 out of 30). Her partner indicated that he felt 'unable' to look after her any longer and said he intended to leave the relationship. She was admitted to a dementia assessment ward, where her 80mg dose of methadone was continued, but she very rapidly became oversedated and the dose was reduced. It was suspected that her partner had either been using or selling part of her daily prescription. Following discussions with the local drug and alcohol service, the consultant old age psychiatrist decided that the methadone should gradually be withdrawn in order to assess its effect on Mrs F's cognitive function. Following this withdrawal, she showed a marked improvement in cognition and self-care (MMSE increased to 24 out of 30). She underwent full investigations (including for blood-borne virus infections) and was diagnosed as having a late-onset dementia secondary to Alzheimer's disease. Her partner had 'disappeared' at this stage, and Mrs F was discharged into sheltered accommodation with Social Services support.

## CASE VIGNETTE KEY POINTS

This case illustrates several points regarding the assessment and management of opiate use in people with cognitive impairment:

- such patients are very vulnerable and readily exploited
- opiates at high doses can have a significant deleterious effect on cognitive function, particularly in patients with underlying cognitive impairment
- close, joint working between the different teams involved in the care of these patients is essential

## ALCOHOL MISUSE AND OLDER PEOPLE: SHOULD GUIDELINES FOR 'SENSIBLE LIMITS' BE MODIFIED?

Sensible limits for alcohol consumption by older people need to be re-examined. Effects of the ageing process and metabolic changes probably mean that they are lower than the limits recommended by the World Health Organization for men and women of working age.

The concept of 'sensible limits' in assessing harm from alcohol is now more than 15 years old. Over the past 5 years, new evidence has emerged that suggests that guidelines for people aged 65 and over should be changed. The original concept of drinking over 'sensible limits' arose from a consensus statement from a working group of the Royal Colleges of Physicians, Psychiatrists and General Practitioners in 1995, defining recommended weekly limits of 21 units of alcohol for men and 14 units for women (Royal College of Physicians, 1995). To improve the accuracy of these recommendations in relation to drinkers who concentrate their alcohol consumption over a shorter time and remain under the threshold for recommended weekly limits, the Department of Health (1995) defined these limits in terms of units of alcohol per day: a maximum of 4 units per day for men and 3 units for women.

Older people tend to show higher blood alcohol levels than younger people on drinking the same amount of alcohol. This difference is attributable to a lower body mass:water ratio and less efficient alcohol metabolism in older people. In older drinkers, there is also ample evidence for alcohol-related harm at lower levels of alcohol intake compared with younger people. For example, increased body sway in older people is associated with normal blood alcohol levels (Beresford & Lucey, 1995). Drinking more than 13 units of alcohol per week for either men or women over 65 is associated with impairment in activities of daily living (Moore *et al*, 2003). More recent evidence from the USA, based on alcohol-related harm/alcohol misuse, has defined 'at-risk' drinking in older people as being more than 1.5 units of alcohol on any one day or more than 11 units per week for both men and women (National Institutes of Health, 2005). The most recent evidence suggests that more than 3 units per day and 11 units per week for older men and women are associated with alcohol-related problems. Whereas in younger people, acute heavy ('binge') drinking is defined as 8 or more units in a single session for men and 6 units for women, the corresponding limits for older men and women are 4.5 and 3 units respectively (Moos



*et al*, 2009). Recommended limits for safe drinking by older people in the UK require further consideration to address the problem of a growing older population, in whom the cohort effects of changing drinking habits are likely to be associated with an increasing public health burden from alcohol-related morbidity and mortality.

## KEY MESSAGES

- Current recommended 'safe limits' for alcohol consumption are based on work in younger adults. Because of physiological and metabolic changes associated with ageing, these 'safe limits' are too high for older people
- Recent evidence suggests that the upper 'safe limit' for older people is 1.5 units per day or 11 units per week
- In older people, binge drinking should be defined as >4.5 units in a single session for men and >3 units for women

# Service models: implications for service development

## *POLICY AND PRACTICE – WHERE ARE WE NOW?*

Few models have been developed to address the needs of older people with substance misuse within the UK's National Health Service (two of these are outlined in Appendix 3). However, there has been considerable development in the voluntary sector, with alcohol and drug treatment charities such as Foundation 66 promoting the case for better recognition and treatment of substance misuse – particularly alcohol misuse – in older people.

The current situation in terms of a policy framework for the prevention of substance misuse by older people and the planning and provision of services for its treatment is generally characterised by a disturbing silence. The National Service Framework for Older People (Department of Health, 2001) did not acknowledge that addiction, in its broadest or narrowest sense, is of relevance to planning service provision for older people. There is no specific mention of substance misuse in policy documents from elderly care medicine, other than that relating to delirium or falls (British Geriatrics Society, 2006, 2007).

Similar public health guidance, in *Alcohol Use Disorders: Preventing the Development of Hazardous and Harmful Drinking* (National Institute for Health and Clinical Excellence, 2010), makes even briefer reference to older people, highlighting that mortality in this group is influenced by alcohol pricing, suggesting the use of the AUDIT-5 as a suitable screening tool and emphasising the disparity between screening and brief intervention in older compared with younger people.

The most significant advance in highlighting the need for assessment and treatment of alcohol misuse in older people has been the publication of the second report of the UK Inquiry into Mental Health and Well-being in Later Life (Age Concern, 2007). The report highlights several areas, notably:

- the high rates of alcohol-related deaths in the 55–74 age group
- the need to pay closer attention to 'invisible' groups such older people with alcohol and drug misuse problems
- epidemiology and psychosocial risk factors (including dual diagnosis, ethnicity and social isolation)
- physical and mental health consequences (such as falls and suicide)
- the detection, treatment and referral of older people with substance misuse, irrespective of age.

As we were writing this report, the final draft NICE guideline *Alcohol Use Disorders: Diagnosis, Assessment and Management of Harmful Drinking and Alcohol Dependence* was published (National Collaborating Centre for Mental Health, 2011). Although it does not address alcohol misuse by older people in any great detail, it does highlight trends in a rising proportion of older men and women drinking above sensible limits (Department of Health, 1995) over the past decade. The guideline also notes the rise in alcohol-related mortality in older people, the need for lower doses of medication when managing alcohol withdrawal and need to redefine sensible limits for alcohol intake in this population. It emphasises that the threshold for alcohol misuse should be lowered when using screening instruments and assessing the severity of alcohol dependence, and highlights the need to consider in-patient care more readily for detoxification. Furthermore, it draws attention to the fact that, although many drug treatments are not licensed for use in older people, there is no reason why they should not be considered clinically effective in this age group.

Our report demonstrates that it would be imprudent for policy makers not to take account of the multiple manifestations of substance use, misuse, harmful use and dependence as part of the phenomenon of polypharmacy and polysubstance misuse and dependence in older people, who often have multiple psychological, physical and social needs. Indeed, we would go so far as to say that it is an abuse of the trust older people still place in their physicians if any problem with which they present is not set in the framework and context of use of substances, be they prescribed, over the counter, licit or illicit, so that patients are offered optimal and quality treatments for these difficulties.

A very different picture has emerged in the USA, with a specific Treatment Improvement Protocol (TIP) guide for the implementation of substance misuse services for older people (U.S. Department of Health and Human Services, 1998) towards which we should aspire.

Substance misuse service provision for older people needs to tackle the deep-rooted age discrimination that has dominated mainstream addiction services in the UK. If needs are to be addressed, such discrimination is no longer appropriate or acceptable (Department of Health, 2009). Policies should be based on the agreement that patients should be able to access the most appropriate clinical service on the basis of need and that age must not be an exclusion criterion (Royal College of Psychiatrists, 2009). This principal, however, is likely to have an impact only if this subject is highlighted and given more than cursory mention in the policy documents that drive the prioritising and funding of healthcare problems. Even within professional bodies there has been no consensus on how to tackle this problem.

However, the recent government initiative of positioning addictions as a public health priority and to create a new body, the Public Health Service, for this purpose (National Treatment Agency for Substance Misuse, 2010b) might provide an opportunity to advocate for this group and redress some of the problems highlighted.

Given that up to a third of older people with alcohol use problems develop them in later life (Council on Scientific Affairs, 1996), there are good reasons for targeting older people (in addition to the more usual focus on younger groups). Strategies could include: better education on the effects of alcohol and 'safe' limits for consumption for older people; restrictions on the advertising and pricing of alcohol; and increasing awareness regarding the potential problems of alcohol use in older people. Similarly, attempts

to reduce the misuse of prescribed and over-the-counter medications by increasing awareness and education of prescribers, dispensers and the general public, regular review of repeat prescriptions and possibly the use of 'structured dispensing systems' such as dosette boxes, blister packs and automated medication carousels may be effective in the primary prevention of medication misuse (O'Connell & Lawlor, 2008).

Focusing on groups of older people who are at particular risk of alcohol or substance misuse (e.g. those with a previous history or those experiencing stresses such as bereavement, retirement, social isolation, physical or mental health problems), perhaps administering screening instruments, could identify individuals at an early stage, preventing morbidity and mortality and reducing costs to the whole healthcare system. As this needs to be done mainly at a primary care level it would be a public health initiative.

The Department of Health and the Royal College of Psychiatrists consider that, owing to their skills and experience, consultant addiction psychiatrists have a unique contribution to make (Royal College of Physicians & Royal College of Psychiatrists, 2001; Royal College of Psychiatrists, 2005). Addiction psychiatrists are best placed to develop the knowledge, skills and attitudes required in the treatment of older people with substance misuse, as they will have had experience in dealing with the most complex cases and providing clinical leadership. Although a sizeable minority of their patients will need the help of a specialist addiction psychiatrist, clinicians who come into contact with older substance misusers in their everyday practice, be they working as old age psychiatrists, geriatricians, liaison psychiatrists, general practitioners or in forensic psychiatry, would benefit from the skills sharing that specialist addiction psychiatrists might offer. Older people with alcohol and substance use problems are likely to present to a wide variety of health services, including primary care, general hospitals (e.g. accident and emergency, medicine for the elderly, gastroenterology), old age psychiatry and specialist alcohol and drug services. The presentations are often non-specific and may mimic other disorders in presenting with physical illness, depression, anxiety, cognitive impairment, or delirium from alcohol withdrawal (Royal College of Psychiatrists, 2004). They also present to other agencies, such as Social Services and the police. In many cases, the underlying cause of the presentation (alcohol or substance misuse) may well be missed unless practitioners are aware of this possibility and maintain a high index of suspicion.

The management of alcohol misuse in patients with cognitive impairment or dementia often presents a significant clinical challenge. Usually these patients are felt to be unsuitable for specialist drug and alcohol services as they lack insight and motivation to accept help, and are unable to engage with or retain information from individual or group counselling. Care for this group is usually best provided by old age psychiatry services (with specialist input and advice from alcohol services and the general hospital where necessary). Management strategies will usually need to involve the patient's family, Social Services and other formal and informal support networks. Often the problem has to be approached by environmental manipulation, for example working with the family to reduce the amount of alcohol they purchase or supply to the individual concerned. Sometimes the only way forward may be to 'take control of the money supply' (e.g. by activating a financial lasting power of attorney or referral to the Court of Protection), on the basis that this is in the older person's best interests, or by moving the person into more supervised accommodation such as residential care.

Within specialist services there is an obvious need for the development of clear local policies regarding older people with substance use problems. Policies should allow for easy transfer between services, joint working and should delineate clear arrangements for which service will take the lead where two (or more) are involved in the care of an individual patient. Policies should also cover arrangements for detoxification, including guidelines and administrative arrangements for organising in-patient detoxification on an elective and emergency basis, in a mental health unit or general hospital.

## TRAINING

In order to detect and manage alcohol and substance misuse in older people, appropriate training is required for all professional staff (including doctors, nurses, psychologists, allied health professionals and social workers) who encounter patients from this age group. Such education needs to begin at undergraduate level and progress through specialist training and continuing professional development (CPD). Addiction specialists and old age psychiatrists will have a particular role to play in providing such education, but a multidisciplinary approach will be necessary. Training programmes will need to increase levels of awareness and provide specific skills in screening, assessment, basic management and knowledge of referral pathways.

## KEY MESSAGES

- Training about the impact of substance misuse on the older person is not an optional extra
- Training for all medical professionals should commence at undergraduate level, through specialist postgraduate education and continue as part of continuing professional development (CPD)
- Old age psychiatrists, addiction specialists and psychiatrists, geriatricians, as well as nursing, psychology, social care and other allied professionals should be suitably trained
- It is essential that health professionals have adequate knowledge of substance use disorders in older people; this includes being aware of associations with mental disorders and physical health problems, as well as vigilance over interactions between substances and both prescribed and over-the-counter medications
- Clinical skills in the areas of screening, assessing motivation to change substance using behaviours, as well as delivering brief interventions and social interventions to reduce relapse within a harm reduction model should be core competencies for health and allied health professionals
- Improved attitudes to older people with substance misuse in areas such as addressing stigma, therapeutic nihilism and social exclusion are required at individual, community and public health levels
- Local policies regarding older people with substance use problems should be developed: access on the basis of need, elimination of age barriers, easy transfer between services, joint working and decisions regarding who will be the lead service in these circumstances, as well as protocols regarding admission for detoxification

## RESEARCH, EVALUATION AND AUDIT

Research into substance misuse among older people in the UK has been highlighted as a significant gap (Crome, 1999, 2000). Most of the evidence showing the effectiveness of treating alcohol use disorders in older people originates in the USA. Much of this research is limited to White men in US veterans hospitals. Few empirical studies have compared treatment modalities and no studies have compared treatment with no treatment. Very few studies have looked at the safety and efficacy of pharmacotherapy to aid abstinence in this population (Dar, 2006). The positive results are preliminary, but they do provide an optimistic picture of the outcome for older substance misusers and form a basis for new research. Implementation should be cautious, but with a degree of confidence, so that patients are not denied effective treatments (Moy *et al*, 2011).

A comprehensive research programme is required which includes epidemiology, development of age-appropriate assessment instruments, evaluation of psychological and pharmacological treatments, longer-term outcomes, management within specific service models, and the roles of professionals and carers (Table 4).

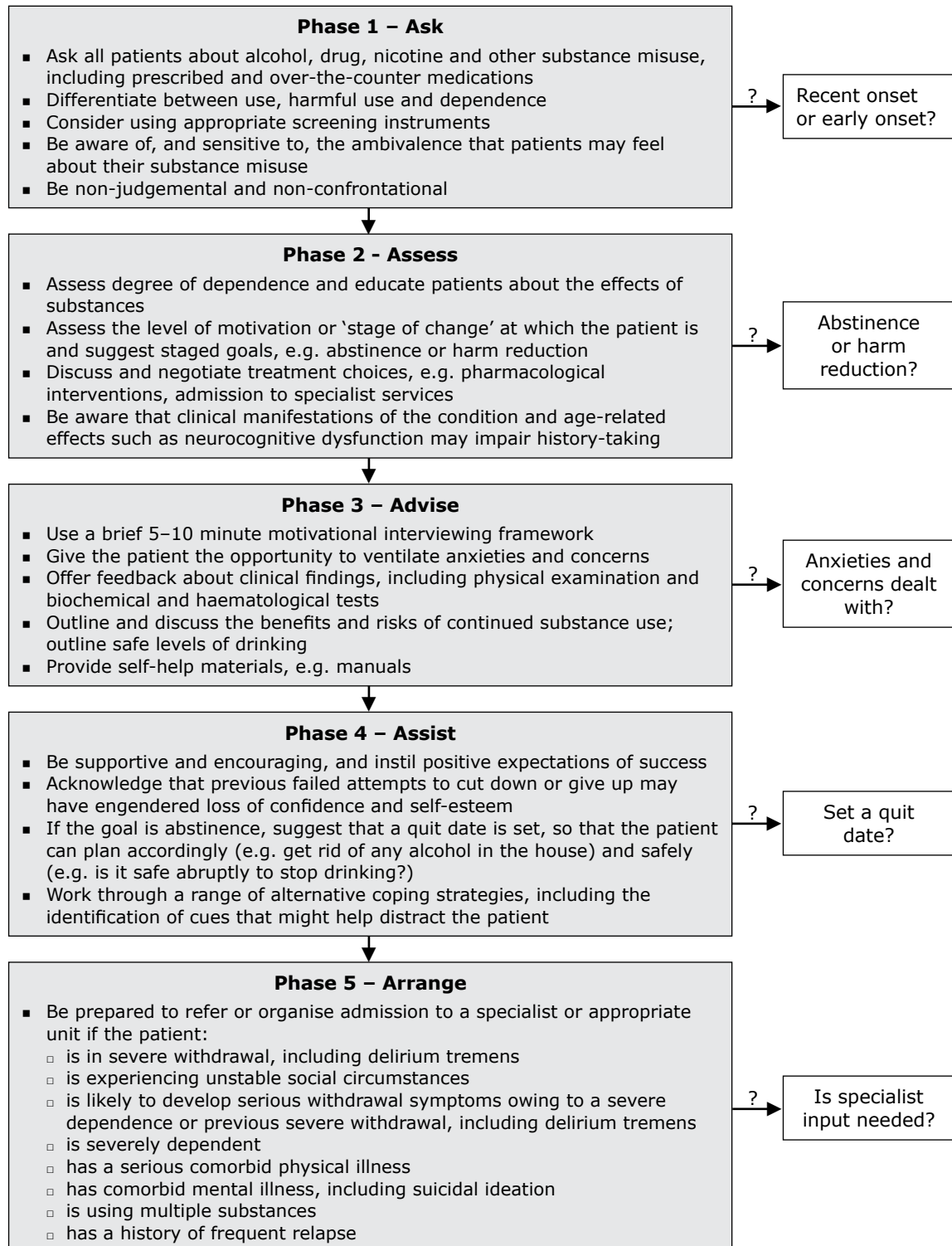
**Table 4 Areas for future research**

<i>Research area</i>	<i>Focus</i>	<i>Specific requirements</i>
Epidemiology	Regional, gender and diversity differences	Development of age-specific questionnaires to establish the scale of the problem in a variety of settings
Assessment	Clinical needs of older adults	Development of standardised age-appropriate tools and protocols
Treatment	Factors associated with treatment success and the safety of pharmacotherapy	Critical review and empirical implementation of treatment strategies used in adults Specific efficacy and safety studies in older people Optimum delivery of services to meet the special needs of older people
Outcome	Long-term outcomes of older adults with substance misuse	Development of appropriate methodologies with standardised outcome measures

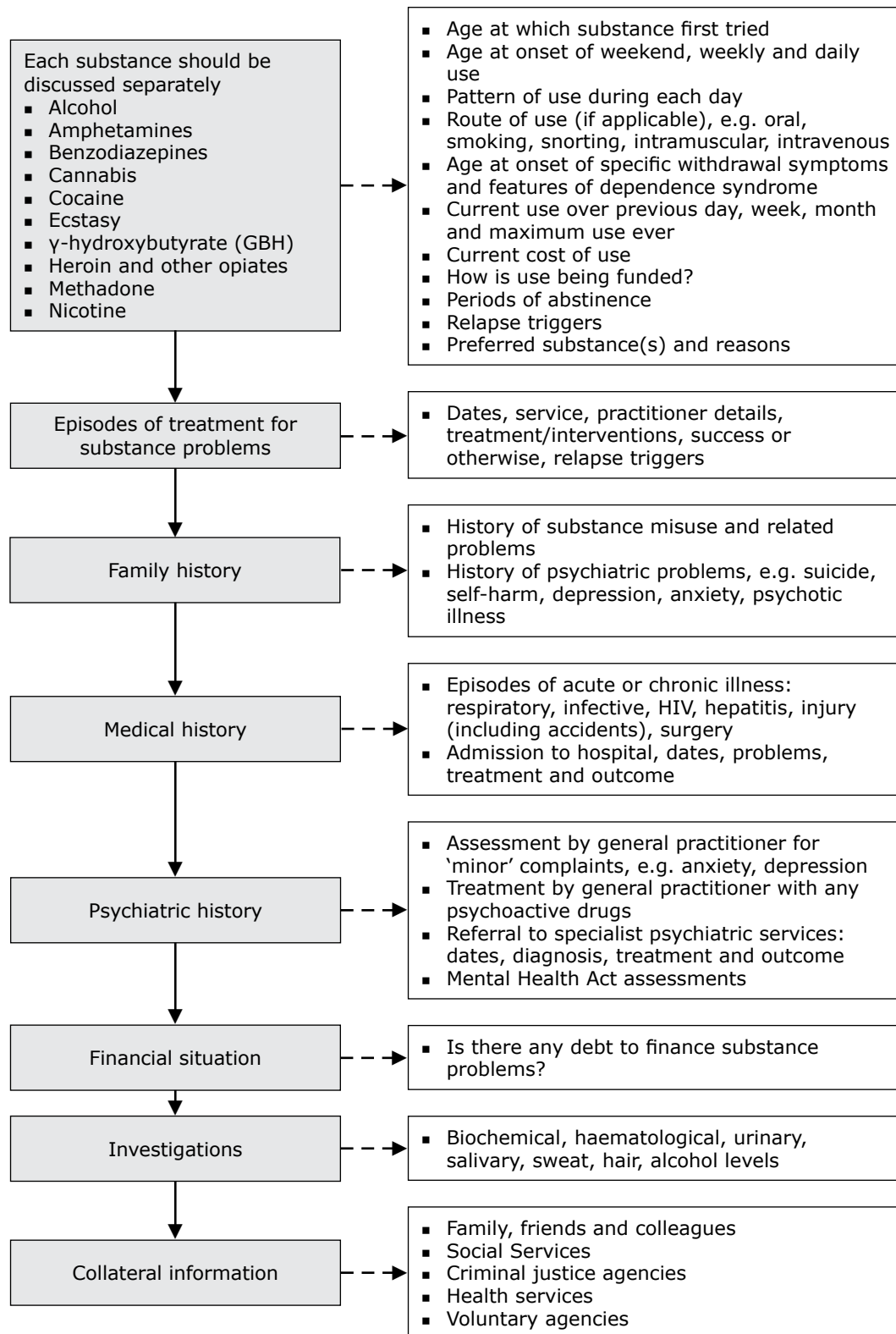
## KEY MESSAGES

- Examination of trends in the extent, nature and predictors of substance use problems in older people is required
- Standardised age-appropriate assessment and outcome measures that encourage comparability should be developed
- Effective interventions for adults should be evaluated and innovative treatments for older people developed
- Service models with a particular focus on long-term outcome should be developed and evaluated

# Appendix 1: Assessment of substance misuse in older people



**Fig. A1.1** A five-phase framework for assessing substance misuse in older patients (after Crome & Bloor 2006).



**Fig. A1.2** Suggested outline for schedule of issues to be covered in assessment (after Crome & Bloor, 2006).



# Appendix 2: Guidance for pharmacological treatment of substance problems in older people

The guidance that follows is drawn partly from the consensus statement produced by the British Association for Psychopharmacology (Lingford-Hughes *et al*, 2004) and from NICE and Department of Health guidelines that reflect the most up-to-date evidence available (Department of Health, 2007; National Collaborating Centre for Mental Health, 2007*a,b*; National Institute for Health and Clinical Excellence, 2007*a,b*) (see also Crome & Bloor, 2006). Note that all of those documents focus on the younger adult population. It is beyond the scope of this report to provide a comprehensive account and readers should consult appropriate sources on substance use problems.

Pharmacological treatments are usually reserved for patients who have substance dependence, and they are available to treat withdrawal syndromes, to maintain abstinence, to prevent complications (including vitamin replacement). Pharmacological interventions are also used to treat psychological and physical disorders in substance misusers.

## MANAGEMENT OF ALCOHOL WITHDRAWAL AND DETOXIFICATION

Although the basic mechanisms of alcohol withdrawal are not age dependent, there is evidence that alcohol withdrawal may be more severe and more prolonged in older patients in general hospital settings, compared with a younger age group (Liskow *et al*, 1989; Brower *et al*, 1994). This finding was not replicated in a study of older patients admitted to a detoxification unit, but the presence of a comorbid physical illness was an exclusion criterion in the study (Wetterling *et al*, 2001). The effect of comorbid physical illness in modifying the course of alcohol withdrawal syndrome in older patients has been investigated in a study of 892 patients in Poland (Wojnar *et al*, 2001). This demonstrated that age itself did not affect the severity of the syndrome, but associated physical illness and age-related infirmities were a significant modifying factor. Alcohol withdrawal can be a life-threatening condition and prompt medical intervention is essential if there are major signs of withdrawal syndrome.

From the evidence, it is clear that older people respond to interventions with the same degree of success as younger patients, and a review of the treatment of alcohol problems in older patients emphasised the importance of providing adequate pharmacological and psychosocial interventions for this population (Whelan, 2003).

## BENZODIAZEPINES

There is evidence that different benzodiazepines are equally efficacious in managing alcohol withdrawal and detoxification (Whelan, 2003). For uncomplicated withdrawal, 20mg of chlordiazepoxide four times a day for 7 days, supplemented by additional treatment for symptom suppression, is 'typical' in a younger adult, although age, degree of severity of dependence, and the need for seizure prevention should be taken into account. There is some evidence that alcohol withdrawal in older patients may be more severe and prolonged in general hospitals, but this may not always be the case (Wetterling *et al*, 2001; Crome & Bloor, 2006). In older patients, a lower starting dose of chlordiazepoxide is advised, with an increase in dose if withdrawal symptoms are not controlled. This is a clinical judgement, and the dose should be sufficient to be effective, but should take account of the patient's overall clinical condition. A longer-acting drug may prevent seizures and delirium, but could lead to accumulation. Each patient should be assessed, treated and monitored regularly. Other methods of administering benzodiazepines are by 'front-loading' (i.e. until light sedation is achieved, at which point no further medication is given) or when 'symptom-triggered' (as opposed to a fixed regime). All these regimes require skilled staff.

Best practice guidance for the use of benzodiazepines in older patients indicates that shorter-acting preparations are preferable (National Collaborating Centre for Chronic Conditions, 2010). The evidence for the use of lorazepam in the treatment of alcohol withdrawal syndrome in older people was reviewed by Peppers (1996) and has been incorporated in Canadian (Seeking Solutions Project, 2004) and American Medical Association (Mayo-Smith, 1997) guidelines. Similar guidance is offered by the Dutch College of General Practitioners in their guidelines for the management of delirium in older people (van der Weele *et al*, 2003). The usual lorazepam regime for a younger adult would be a slow tapering dose starting at 2mg four times a day; as with all detoxification regimes it is safest to titrate the dose against symptoms, which results in better control and a lower total dose. In older patients, particularly those with severe liver disorder, the risk of accumulation is reduced with shorter-acting preparations such as oxazepam.

## CHLORMETHIAZOLE

Chlormethiazole is not recommended for older patients because of its effect on respiration, cardiovascular complications and the unpredictability of the serum levels achieved (Broadhurst *et al*, 2003).

## CARBAMAZEPINE

Carbamazepine has not been evaluated in older populations and is therefore not recommended.

## THIAMINE AND WERNICKE'S ENCEPHALOPATHY

Despite the commonness of vitamin deficiency in alcohol dependence, the quality of evidence for the prevention and treatment of Wernicke's encephalopathy is weak. A Cochrane review of the evidence for the efficiency of thiamine (vitamin B<sub>1</sub>) in treating Wernicke's encephalopathy concluded

that, although there is good empirical evidence to support current best practice guidelines, there is insufficient evidence from randomised controlled trials to guide the clinician on the correct dose, frequency of administration or duration of treatment (Day *et al*, 2004).

The use of oral thiamine is not recommended in the treatment of Wernicke's encephalopathy, as the levels reached from oral administration are not sufficient to address the deficiency. All patients at risk of developing Wernicke's encephalopathy, particularly those with poor diet or malnutrition (Sgouros *et al*, 2004), should be given 250mg thiamine intramuscularly or intravenously once daily for 3–5 days. For suspected or actual Wernicke's encephalopathy, the recommendation is a minimum of 500mg intramuscularly or intravenously three times a day for at least 2 days for as long as there is some improvement, followed by 250mg once daily for 3–5 days, depending on the response. Thiamine for parenteral administration is also available in formulations combining vitamins B and C. One such formulation (now withdrawn in the UK) was associated with a very small risk of anaphylaxis, mostly on intravenous administration (Committee on Safety of Medicines, 1989). Consequently, intravenous administration should ideally be given in facilities where anaphylactic shock can be treated. If delivery in the community is necessary, procedures should be followed to ensure safe administration (Lingford-Hughes *et al*, 2004).

## TREATMENT OF OPIATE MISUSE

There is considerable evidence for the use of methadone, buprenorphine and  $\alpha_2$ -agonists (clonidine and lofexidine) in the management of withdrawal states, but it has been obtained in populations of younger adults. The choice of medication will depend on such factors as preferred duration of treatment, adverse effects (brachycardia and hypotension due to  $\alpha_2$ -adrenergic agonists) and the severity of withdrawal symptoms. Obviously, the patient's clinical condition, degree of dependence and preference, together with the practitioner's experience, will determine which drug to use.

Similarly, there is an established evidence base for methadone maintenance treatment and, more recently, for buprenorphine. Once again, this relates to younger people. There is inadequate evidence for treatment with naltrexone and injectable opioids, and for using coercive methods.

## SPECIAL CONSIDERATIONS

### *ALCOHOLIC DEMENTIA AND ALCOHOL-RELATED DEMENTIA*

The role of alcohol as the primary aetiological factor (primary alcohol dementia) remains uncertain. It is more likely that alcohol is a contributory factor for dementia (alcohol-related dementia). This dementia differs from other dementias both clinically and in radiological findings. Criteria for the clinical diagnosis of probable alcohol-related dementia include a clinical diagnosis of dementia at least 60 days after the last exposure to alcohol. The disorder is supported by the presence of any of the following: alcohol-related end organ (including neurological) damage; improvement/stabilisation of cognitive impairment and/or reversal of radiological changes after at least

60 days of abstinence; and neuroimaging evidence of cerebellar atrophy. The presence of language impairment, focal neurological signs and neuroimaging evidence of infarction/haemorrhage cast doubt on the diagnosis (Oslin *et al*, 1998).

### *HEPATITIS C AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE*

Hepatitis C in combination with alcohol misuse is becoming a disease predominantly associated with older people (Cainelli, 2008). A similar observation has been made for chronic obstructive pulmonary disease associated with smoking (Huisman *et al*, 2005). In this context, clinicians should discuss options, recommendations and plans for terminal and palliative care and end-of-life treatment with older people who have developed these comorbid illnesses.

# Appendix 3: Model alcohol misuse services for older people

## SERVICE PROVISION FOR OLDER PEOPLE WITH DUAL DIAGNOSIS IN SOUTH LONDON AND MAUDSLEY NHS FOUNDATION TRUST, LONDON

North Southwark Community Team for Older People is a multidisciplinary community mental health team responsible for the assessment and treatment of older people with mental disorders, covering a large inner-city area of south-east London. The catchment area of approximately 13000 people aged 65 and over has a sizeable population with a history of heavy drinking. This is influenced by the large number of older men who were previously employed on the docks and in the construction industry, environments that were associated with a culture of heavy drinking. However, this drinking culture has also been incorporated into the lifestyle of a number of older women, irrespective of their previous occupation. The team comprises a consultant psychiatrist, specialty doctor, four community psychiatric nurses, two occupational therapists, a consultant clinical psychologist, an assistant clinical psychologist and a social worker. The North Southwark team is unique in offering a service based on the what the Department of Health now calls 'New Ways of Working' (Care Services Improvement Partnership & National Institute for Mental Health in England, 2007), although the service was set up in 1981, long before the government initiative was launched.

The service (called the 'Guy's model') was the first open-access service in the UK for older people's mental health, accepting referrals from any source (including self-referrals) and offering a system of multidisciplinary assessment and case management across the range of specialties. It remains one of the few services in the country that has doctors as care coordinators/key workers, thereby allowing a 'hands-on' approach to care and an in-depth experience of day-to-day management problems. This has been particularly advantageous in the area of dual diagnosis involving alcohol misuse, where the consultant psychiatrist is care coordinator for older people with complex problems relating to alcohol misuse, sharing expertise and seeking help from other specialties when required.

In response to the considerable number of referrals of older people with alcohol misuse who were unable to access standard NHS substance misuse services, the team's consultant psychiatrist has acquired particular expertise in the area of alcohol misuse, thereby enabling knowledge and skills to be shared with the rest of the team. This has been helped by the creation of a specialised support service (Older Adults Support in Southwark, OASIS),

which is jointly funded by the government's Supporting People programme and Southwark Social Services.

The provision of a specific service within the North Southwark team to meet the needs of older people with mental health problems and alcohol misuse took 10 years to accomplish. The main obstacle was that it had to be delivered within existing resources. The first seeds of change were sown in 1999, when it was noted that up to 1 in 5 referrals to the team each month involved alcohol misuse, but the way in which the existing substance misuse service was set up meant that it was not suitable for the team's home-based model of care. Furthermore, it lacked the age-specific knowledge, skills and attitudes necessary for effective treatment of older people. By 2002, it was noted that up to 50% of psychiatric admissions of older people involved a dual diagnosis, with alcohol misuse being central to the clinical problems.

In 2003, an audit of the team's case-load revealed that only 5% of clients showed evidence of alcohol misuse, but all those who did were drinking at harmful levels. As a result, the consultant psychiatrist on the team embarked on an MSc in clinical and public health aspects of addictions, providing much needed expertise to managing older people with substance misuse. Five years on, following a series of awareness seminars to GPs in the catchment area and the introduction of OASIS in 2005, the team was finally able to manage dual diagnosis involving alcohol misuse in older people more effectively, cutting down the percentage of mental health admissions to fewer than 5%. The impact of the North Southwark Community Team for Older People, in partnership with OASIS, earned the team a Clinical Governance Award in the category of 'choice and empowerment' from South London and Maudsley NHS Trust in 2006. Engagement of other stakeholders, such as the Southwark Irish Pensioners Project, has also resulted in increased awareness of alcohol misuse and dual diagnosis in the borough.

However, the problem of alcohol misuse in the area is still increasing, and there has been an 80% increase in the number of older people with dual diagnosis on the team case-load between 2003 and 2009.

As awareness also improved within the addictions directorate of the Trust, the provision of level 1 (generic) dual diagnosis training to 15 clinicians across a number of disciplines in the Older Adults Directorate took place in 2009, followed by a training-needs analysis. The existence of generic training has provided non-medical clinical staff within the North Southwark team with the skills to screen for the presence of coexisting mental health difficulties and substance misuse; develop and sustain collaborative therapeutic relationships with patients who have a dual diagnosis; systematically assess the needs of these patients and construct basic care plans designed to address these needs; implement simple, low-intensity, evidence-based dual diagnosis interventions safely and effectively in partnership with patients; and recognise patients whose needs are sufficiently complex to require high-intensity dual diagnosis interventions and refer them to specialist services.

Over the past decade, considerable progress has been made in meeting the needs of older people with alcohol misuse and accompanying mental disorders such as depression and cognitive impairment. The Trust now has its own older adults' dual diagnosis steering group. It is hoped that continued delivery of level 1 training and a further training-needs analysis will equip a range of clinicians with the knowledge and skills to be able to manage dual diagnosis in older people more effectively and with positive health and social outcomes.

## JOINT SERVICE PROVISION BY THE ADDICTIONS DIRECTORATE CENTRAL & NORTH WEST LONDON NHS TRUST AND THE OLD AGE DIRECTORATE WEST LONDON MENTAL HEALTH TRUST

This model underpins the key message of the Department of Health's *Dual Diagnosis – Good Practice Guidance* (2002) that comorbidity should be 'mainstreamed'. The agreed policy thus explicitly states that services for older people with comorbid mental health and alcohol-related problems will be delivered by the older peoples' psychiatric services, supported by the local community alcohol service. The model has clearly defined reciprocal and complementary referral processes for both services. The following are the salient points of the model.

- Screening tools are to be used by older peoples' services for all patients presenting by incorporating screening into their routine assessment procedures. The SMAST-G (Blow *et al*, 1998) will be the instrument used for this. Alcohol services would use the MMSE (Folstein *et al*, 1975) in addition to the clinical psychiatric examination to assess patients as a routine.
- A simple tool has been introduced to help clinical staff in older peoples' services to determine the extent and context of alcohol consumption by patients.
- Emphasis is placed on knowledge and recognition of the demarcation between hazardous, harmful and dependent use of alcohol.
- Hazardous and harmful alcohol use have linked to them a stepped approach for interventions on the brief intervention/motivational interviewing model, carried out by older peoples' services for a specified period (8 weeks). Patients who do not respond to this are referred to the community alcohol service. Alcohol dependence means an automatic referral to the community alcohol service. The same principle applies to the alcohol service for patients in their care: those who have less severe mental health problems are managed by the alcohol team or in primary care. Those with severe mental health problems are referred to and treated jointly with older peoples' services.
- At point of referral and subsequently, the model has agreed criteria that trigger joint assessments and joint home visits by the two teams. This involves assessments by both services in both community and in-patient settings. The older peoples' services will take the lead for patients who are subject to the care programme approach (CPA).

There is a need for a clear and systematic plan to develop a training package and the protocol does this by paving the way for staff on both teams to be allowed to spend time on brief attachment to each other's service, attend multidisciplinary team meetings and receive more formal training on core competencies such as screening and identification, motivational interviewing and recognising the different levels of severity of alcohol misuse and mental health problems.

Owing to the special needs of this population, the involvement of family members and carers is emphasised and the provision of information and support to them is included in the protocol.

# Appendix 4: Online resources

## ROYAL COLLEGE OF PSYCHIATRISTS

- 'Alcohol and Older People': leaflet, podcasts and links to related information (<http://www.rcpsych.ac.uk/mentalhealthinfo/problems/alcoholanddrugs/alcoholandolderpeople.aspx>)
- 'Alcohol-related dementia: a 21st-century silent epidemic?': podcast in which Dr Susham Gupta discusses this editorial in the *British Journal of Psychiatry* with Dr Mark Salter (<http://www.rcpsych.ac.uk/pressparliament/podcasts/alcohol-relateddementia.aspx>)
- 'UK heading towards a "silent epidemic" of alcohol-related dementia': press release on Dr Susham Gupta's editorial in the *British Journal of Psychiatry*, with a link to the editorial (<http://www.rcpsych.ac.uk/pressparliament/pressreleases2008/bank2008/pralcoholrelateddementia.aspx?theme=print>)
- John Wattis (1998) Personality disorders and alcohol dependence. In *Seminars in Old Age Psychiatry* (eds R. Butler & B. Pitt): pp. 163–179. Gaskell. PDF of chapter ([http://www.rcpsych.ac.uk/pdf/semOAP\\_ch11.pdf](http://www.rcpsych.ac.uk/pdf/semOAP_ch11.pdf))
- 'Significantly more alcohol misuse among mentally ill older men in Glasgow than in Dundee': summary of findings presented by Dr C. Rodriguez and colleagues at the Royal College of Psychiatrists' Annual Meeting in 2000 (<http://www.rcpsych.ac.uk/pressparliament/pressreleasearchive/pr98.aspx>)
- Minutes of Meeting of the Executive Committee and Regional Representatives of the Faculty for the Psychiatry of Old Age, 22 November 2007 (<http://www.rcpsych.ac.uk/docs/2007%2011%2022%20minutes.doc>)
- Roberts, A. (2002) The older drinker. *Old Age Psychiatrist*, **28**, 10 (<http://www.rcpsych.ac.uk/pdf/OAP28.pdf>)
- Hillam, J. (2005) Supporting quality of life. *Old Age Psychiatrist*, **37**, 2 ([http://www.rcpsych.ac.uk/pdf/OAP\\_371.pdf](http://www.rcpsych.ac.uk/pdf/OAP_371.pdf))
- O'Connell, H. (2005) Alcohol use disorders in older people. *Old Age Psychiatrist*, **37**, 3 ([http://www.rcpsych.ac.uk/pdf/OAP\\_371.pdf](http://www.rcpsych.ac.uk/pdf/OAP_371.pdf))
- Royal College of Physicians & Royal College of Psychiatrists (2001) *Role of Consultants with Responsibility for Substance Misuse (Addiction Psychiatrists): Position Statement by the Faculty of Substance Misuse*



- (Council Report CR97). Royal College of Psychiatrists (<http://www.rcpsych.ac.uk/files/pdfversion/cr97.pdf>)
- Royal College of Psychiatrists (2005) *Roles and Responsibilities of Doctors in the Provision of Treatment for Drug and Alcohol Misusers* (College Report CR131). Royal College of Psychiatrists (<http://www.rcpsych.ac.uk/files/pdfversion/cr131.pdf>)

## OTHER SOURCES

- Institute of Alcohol Studies (2010) *Alcohol & The Elderly: IAS Factsheet* (<http://www.ias.org.uk/resources/factsheets/elderly.pdf>)
- Shaw C. & Palattiyil, G. (2008) Issues of alcohol misuse among older people: attitudes and experiences of social work practitioners. *Practice*, **20**, 181–193 (<http://www.informaworld.com/smpp/content~db=all~content=a902096844~frm=titlelink>)
- University of Brighton (2008) Cheers!?! A project about older people and alcohol ([http://www.brighton.ac.uk/sass/research/publications/Cheers\\_Findings.pdf](http://www.brighton.ac.uk/sass/research/publications/Cheers_Findings.pdf))
- Social Care Institute for Excellence (2006) SCIE Guide 3: Assessing the mental health needs of older people. Extended resume of: Herring R & Thom B (1997) Alcohol misuse in older people: the role of home carers. *Health and Social Care in the Community*, **5**, 237–245. (<http://www.scie.org.uk/publications/guides/guide03/resumes/resume04.asp>)
- Social Care Institute for Excellence (2006) SCIE Guide 3: Assessing the mental health needs of older people. Extended resume of: Derry A D (2000) Substance use in older adults: a review of current assessment, treatment and service provision. *Journal of Substance Use*, **5**, 252–262 (<http://www.scie.org.uk/publications/guides/guide03/resumes/resume02.asp>)

# References

- Adams, W. L., Barry, K. L. & Fleming, M. F. (1996) Screening for problem drinking in older primary care patients. *JAMA*, **276**, 1964–1967.
- Age Concern (2007) *Improving Services and Support for Older People with Mental Health Problems: The Second Report from the UK Inquiry into Mental Health and Well-being in Later Life*. Age Concern.
- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders (4th edn) (DSM-IV)*. APA.
- Appel, D. W. & Aldrich, T. K. (2003) Smoking cessation in the elderly. *Clinics in Geriatric Medicine*, **19**, 77–100.
- Atkinson, R. M. (2002) Substance abuse in the elderly. In *Psychiatry in the Elderly* (eds R. Jacoby & C. Oppenheimer): pp. 799–834. Oxford University Press.
- Bacharach, S. B., Bamberger, P. A., Sonnenstuhl, W. J., et al (2004) Retirement, risky alcohol consumption and drinking problems among blue-collar workers. *Journal of Studies on Alcohol*, **65**, 537–545.
- Balestrieri, M., Marcon, G., Samani, F., et al (2005) Mental disorders associated with benzodiazepine use among older primary care attenders: a regional survey. *Social Psychiatry and Psychiatric Epidemiology*, **40**, 308–315.
- Banerjee, S., Clancy, C. & Crome, I. (eds) (2001) *Co-existing Problems of Mental Disorder and Substance Misuse (Dual Diagnosis): An Information Manual. Final Report to the Department of Health*. Royal College of Psychiatrists' Research and Training Unit.
- Benyon, C., McVeigh, J. & Roe, B. (2007) Problematic drug use, ageing and older people: trends in the age of drug users in north West England. *Ageing and Society*, **27**, 799–810.
- Beresford, T. P. (2000) Alcoholism. In *Oxford Textbook of Geriatric Medicine* (eds J. G. Evans, T. F. Williams, J.-P. Michel, et al): pp. 1008–1021. Oxford University Press.
- Beresford, T. P. & Lucey, M. R. (1995) Ethanol metabolism and intoxication in the elderly. In *Alcohol and Aging* (eds T. Beresford & E. Gomberg): pp. 117–127. Oxford University Press.
- Berks, J. & McCormick, R. (2008) Screening for alcohol misuse in elderly primary care patients: a systematic literature review. *International Psychogeriatrics*, **20**, 1090–1103.
- Bird, S., Hutchinson, S. & Goldberg, D. (2003) Drug-related deaths by region, sex and age group per 100 injecting drug users in Scotland, 2000–01. *Lancet*, **362**, 941–944.
- Blazer, D. G. & Wu, L.-T. (2009) The epidemiology of at-risk and binge drinking among middle-aged and elderly community adults: National Survey on drug use and health. *American Journal of Psychiatry*, **166**, 1162–1169.
- Blow, F. C. (1998) *Substance Abuse Among Older Adults (Treatment Improvement Protocol (TIP) Series 26)*. DHSS Publication No. (SMA) 98-3179. US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.
- Blow, F. C., Gillespie, B. W. & Barry, K. L. (1998) Brief screening for alcohol problems in elderly populations using the Short Michigan Alcoholism Screening Test–Geriatric Version (SMAST-G). *Alcoholism: Clinical and Experimental Research*, **22** (Suppl).

- Blow, F. C., Walton, M. A., Barry, K. L., *et al* (2000) The relationship between alcohol problems and health functioning of older adults in primary care settings. *Journal of the American Geriatrics Society*, **48**, 769–774.
- Brennan, P. L., Nichol, A. C. & Moos, R. H. (2003) Older and younger patients with substance use disorders: outpatient mental health service use and functioning over a 12-month interval. *Psychology of Addictive Behaviors*, **17**, 42–48.
- British Geriatrics Society (2006) *Guidelines for the Prevention, Diagnosis and Management of Delirium in Older People in Hospital*. British Geriatrics Society.
- British Geriatrics Society (2007) *Falls (BGS Best Practice Guide 4.5)*. British Geriatrics Society.
- Broadhurst, C., Wilson, K. C. M., Kinirons, M. T., *et al* (2003) Clinical pharmacology of old age syndromes. *British Journal of Clinical Pharmacology*, **56**, 261–272.
- Brower, K. J., Mudd, S., Blow, F. C., *et al* (1994) Severity and treatment of alcohol withdrawal in elderly versus younger patients. *Alcoholism: Clinical and Experimental Research*, **18**, 196–201.
- Brymer, C. & Rusnell, I. (2000) Reducing substance dependence in elderly people: the side effects program. *Canadian Journal of Clinical Pharmacology*, **7**, 161–166.
- Bush, K., Kivlahan, D. R., McDonnell, M. B., *et al* (1998) The AUDIT Alcohol Consumption Questions (AUDIT-C): an effective, brief screening test for problem drinking. *Archives of Internal Medicine*, **158**, 1789–1795.
- Byrne G. J., Raphael, B. & Arnold, E. (1999) Alcohol consumption and psychological distress in recently widowed older men. *Australia and New Zealand Journal of Psychiatry*, **33**, 740–747.
- Cainelli, F. (2008) Hepatitis C virus infection in the elderly: epidemiology, natural history and management. *Drugs and Aging*, **25**, 9–18.
- Care Services Improvement Partnership & National Institute for Mental Health in England (2007) *Mental Health: New Ways of Working for Everyone. A Best Practice Implementation Guide*. Department of Health.
- Carstensen, L. L., Rychtarik, R. G. & Prue, D. M. (1985) Behavioral treatment of the geriatric alcohol abuser: a long term follow-up study. *Addictive Behaviors*, **10**, 307–311.
- Chrischilles, E. A., Lemke, J. H., Wallace, R. B., *et al* (1990) Prevalence and characteristics of multiple analgesic drug use in an elderly study group. *Journal of the American Geriatrics Society*, **38**, 979–984.
- Colliver, J. D., Compton, W. M., Gfroerer, J. C., *et al* (2006) Projecting drug use among aging baby boomers in 2020. *Annals of Epidemiology*, **16**, 257–265.
- Committee on Safety of Medicines (1989) Parentrovite and allergic reactions. *Current Problems*, **24**.
- Coulthard, M., Farrell, M., Singleton, N., *et al* (2002) *Tobacco, Alcohol and Drug Use and Mental Health*. TSO (The Stationery Office).
- Council on Scientific Affairs, American Medical Association (1996) Alcoholism in the elderly. *JAMA*, **275**, 797–801.
- Crane, M. (1998) The associations between mental illness and homelessness among older people: an exploratory study. *Aging and Mental Health*, **2**, 171–180.
- Crane, M. & Warnes, A. M. (2001) Older people and homelessness: prevalence and causes. *Topics in Geriatric Rehabilitation*, **16**, 1–14.
- Crome, I. B. (1999) Addiction research in the UK: How is it working? *Addiction Biology*, **4**, 231–2.
- Crome, I. B. (2000) Alcohol and the older person. In *Drugs and the Older Population* (eds P. Crome & G. Ford): pp. 1191–1204. Imperial College Press.
- Crome, I. B. (2005) Drug abuse and the older person: a contradiction in terms? In *Principles and Practice of Geriatric Medicine* (eds J. Pathy, J. Morley & A. Sinclair): pp. 1191–1204. John Wiley & Sons.
- Crome, I. B. & Bloor, R. (2005a) Older substance misusers still deserve better services – An update (Part 1). *Reviews in Clinical Gerontology*, **15**, 125–133.
- Crome, I. B. & Bloor, R. (2005b) Older substance misusers still deserve better diagnosis – An update (Part 2). *Reviews in Clinical Gerontology*, **15**, 255–262.

- Crome, I. B. & Bloor, R. (2006) Older substance misusers still deserve better interventions – An update (Part 3). *Reviews in Clinical Gerontology*, **16**, 45–57.
- Crome, I. B. & Bloor, R. (2008) Alcohol problems. In *Essential Psychiatry* (eds R. Murray, K.S. Kendler, P. McGuffin, et al): pp. 198–229. Cambridge University Press.
- Crome, I. B. & Day, E. (1999) Substance misuse and dependence: older people deserve better services. *Reviews in Clinical Gerontology*, **9**, 327–342.
- Crome, I. B. & Day, E. (2002) Substance misuse. In *Mental Health in Primary Care* (eds A. Elder & J. Holmes): pp. 221–240. Oxford University Press.
- Crome, I. B. & Ghodse, A.-H. (2007) Drug misuse in medical patients. In *Handbook of Liaison Psychiatry* (eds G. Lloyd & E. Guthrie): pp. 180–220. Cambridge University Press.
- Crome, I., Sidhu, H. & Crome, P. (2009) No longer only a young man's disease: illicit drugs in older people. *Journal of Nutrition, Health and Aging*, **13**, 141–143.
- Cuijpers, P., Riper, H. & Lemmers, L. (2004) The effects on mortality of brief interventions for problem drinking: a meta-analysis. *Addiction*, **99**, 839–845.
- Culberson, J. W. & Ziska, M. (2008) Prescription drug misuse/abuse in the elderly. *Geriatrics*, **63**, 22–31.
- Dar, K. (2006) Alcohol use disorders in elderly people: fact or fiction? *Advances in Psychiatric Treatment*, **12**, 173–181.
- Day, E. & Crome, I. B. (2002) Physical health problems. In *Working with Substance Misusers* (eds T. Petersen & A. McBride): pp. 174–189. Routledge.
- Day, E., Bentham, P., Callaghan, R., et al (2004) Thiamine for Wernicke–Korsakoff Syndrome in people at risk from alcohol abuse. *Cochrane Database of Systematic Reviews*, issue 1, Art. No.: CD004033 (doi: 10.1002/14651858.CD004033.pub2).
- Department of Health (1995) *Sensible Drinking: Report of an Inter-Departmental Working Group*. Department of Health.
- Department of Health (2001) *Modern Standards and Service Models: Older People – National Service Framework*. Department of Health.
- Department of Health (2002) *Dual Diagnosis – Good Practice Guidance*. Department of Health.
- Department of Health (2006) *NHS Smoking Helpline Factsheet: Smoking and Mortality*. ([http://smokefree.nhs.uk/resources/downloads/Statistics\\_19-05-06PDF.pdf](http://smokefree.nhs.uk/resources/downloads/Statistics_19-05-06PDF.pdf)).
- Department of Health (2007) *Drug Misuse and Dependence: Guidelines on Clinical Management*. Department of Health.
- Department of Health (2009) *Achieving Age equality in Health and Social Care*. Department of Health.
- De Wilde, S., Carey, I. M., Harris, T., et al (2007) Trends in potentially inappropriate prescribing amongst older UK primary care patients. *Pharmacoepidemiology and Drug Safety*, **16**, 658–667.
- Dunne, F. J. & Schipperheijn, J. A. M. (1989) Alcohol and the elderly: need for greater awareness. *BMJ*, **298**, 1660–1661.
- Dupree, L. W., Broskowski, H. & Schonfeld, L. (1984) The gerontology alcohol project: a behavioural treatment program for elderly alcohol abusers. *Gerontologist*, **24**, 510–516.
- European Commission (2006) *Alcohol-Related Harm in Europe – Key Data*. European Communities.
- European Monitoring Centre for Drugs and Drug Addiction (2008) Substance use among older adults: a neglected problem. *Drugs in Focus*, issue 18. EMCDDA.
- Ewing, J. A. (1984) Detecting alcoholism: the CAGE questionnaire. *JAMA*, **252**, 1905–1907.
- Falascchetti, E., Malbut, K. & Primatesta, P. (2002) Prescribed medication. In *Health Survey for England 2000: The General Health of Older People and Their Use of Health Services* (eds G. Prior & P. Primatesta). TSO (The Stationery Office).

- Firoz, S. & Carlson, G. (2004) Characteristics and treatment outcome of older methadone maintenance patients. *American Journal of Geriatric Psychiatry*, **12**, 539–541.
- Fleming, M. F., Manwell, L. B., Barry, K. L., *et al* (1999) Brief physician advice for alcohol problems in older adults: a randomised community-based trial. *Journal of Family Practice*, **48**, 378–384.
- Folstein, M. F., Folstein, S. E. & McHugh, P. R. (1975) 'Mini-mental state': a practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, **12**, 189–198.
- Frischer, M., Goldberg, D., Rahman, M., *et al* (1997) Mortality and survival among a cohort of drug injectors in Glasgow 1982–1984. *Addiction*, **92**, 419–427.
- Frisher, M., Crome, I., Macleod, J., *et al* (2005) Substance misuse and psychiatric illness: a prospective observation study. *Journal of Epidemiology and Community Health*, **58**, 847–850.
- Gfroerer, J., Penne, M., Pemberton, M., *et al* (2003) Substance abuse treatment need among older adults in 2020: the impact of the aging baby-boom cohort. *Drug and Alcohol Dependence*, **69**, 127–135.
- Ghodse, H., Corkery, J., Oyefoso, A., *et al* (2009) *Drug-related Deaths in the UK*. International Centre for Drug Policy.
- Glas, T. A., Prigerson, H., Kasl, S. V., *et al* (1995) The effects of negative life events on alcohol consumption among older men and women. *Journal of Gerontology: Social Sciences*, **50B**, S205–S216.
- Glatt, M. (1978) Experience with elderly alcoholics in England. *Alcoholism: Clinical and Experimental Research*, **2**, 23.
- Gordon, A. J., Conigliaro, J., Maisto, S. A., *et al* (2003) Comparison of consumption effects of brief interventions for hazardous drinking elderly. *Substance Use and Misuse*, **38**, 1017–1035.
- Gottlieb, S. (2004) Inappropriate drug-prescribing in elderly people is common. *BMJ*, **329**, 367.
- Graham, K., Carver, V. & Brett, P. J. (1995) Alcohol and drug use by older women: results of a national survey. *Canadian Journal on Aging*, **14**, 769–791.
- Gupta, S. & Warner, J. (2008) Alcohol-related dementia; a 21st-century silent epidemic? *British Journal of Psychiatry*, **193**, 351–353.
- Han, B., Gfroerer, J. C., Colliver, J. D., *et al* (2009) Substance use disorder among older adults in the United States, 2020. *Addiction*, **104**, 88–96.
- Hoare, J. (2009) *Drug Misuse Declared: Findings from the British Crime Survey 2008/9 England and Wales (Home Office Statistical Bulletin 12/09)*. The Home Office.
- Homer, A. C. & Gilleard, C. (1990) Abuse of elderly people by their carers. *BMJ*, **301**, 1359–1362.
- Huisman, M., Kunst, A. E., Bopp, M., *et al* (2005) Educational inequalities in cause-specific mortality in middle-aged and older men and women in eight western European populations. *Lancet*, **365**, 1765–1766.
- Jacob, T., Koenig, L. B., Howell, D. N., *et al* (2009) Drinking trajectories from adolescence to the fifties among alcohol dependent men. *Journal of Studies on Alcohol and Drugs*, **70**, 859–869.
- Joseph, C. L., Ganzini, L. & Atkinson, R. M. (1995) Screening for alcohol use disorders in the nursing home. *Journal of the American Geriatrics Society*, **43**, 368–373.
- Kaempf, G., O'Donnell, C. & Oslin, D. W. (1999) The BRENDA model: a psychosocial addiction model to identify and treat alcohol disorders in elders. *Geriatric Nursing*, **20**, 302–304.
- La Greca, A. J., Akers, R. L., Dwyer, J. W. (1988) Life events and alcohol behavior among older adults. *Gerontologist*, **28**, 552–558.
- Lemke, S. & Moos, R. H. (2003a) Outcomes at 1 and 5 years for older patients with alcohol use disorders. *Journal of Substance Abuse Treatment*, **24**, 43–50.
- Lemke, S. & Moos, R. H. (2003b) Treatment and outcomes of older patients with alcohol use disorders in community residential programs. *Journal of Studies on Alcohol*, **64**, 216–219.

- Lingford-Hughes, A. R., Welch, S. & Nutt, D. J. (2004) Evidence-based guidelines for the pharmacological management of substance misuse, addiction and comorbidity: recommendations from the British Association for Psychopharmacology. *Journal of Psychopharmacology*, **18**, 293–335.
- Liskow, B. I., Rinck, C., Campbell, J., *et al* (1989) Alcohol withdrawal in the elderly. *Journal of Studies on Alcohol*, **50**, 414–421.
- Mayo-Smith, M. F. (1997) Pharmacological management of alcohol withdrawal: a meta analysis and evidence-based guideline. *JAMA*, **278**, 144–151.
- McGrath, A., Crome, B. & Crome, I. B. (2005) Substance misuse in the older population. *Postgraduate Medical Journal*, **81**, 228–231.
- McInnes, E. & Powell, J. (1994) Drug and alcohol referrals: are elderly substance abuse diagnoses and referrals being missed? *BMJ*, **308**, 444–446.
- Miller, W. R., Wilbourne, P. L. (2002) Mesa Grande: a methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction*, **97**, 265–277.
- Moore, A. A., Beck, J. C., Babor, T. F., *et al* (2002) Beyond alcoholism: identifying older, at-risk drinkers in primary care. *Journal of Studies on Alcohol*, **63**, 316–324.
- Moore, A. A., Endo, J. O. & Kalin, M. (2003) Is there a relationship between excessive drinking and functional impairment in older persons? *Journal of the American Geriatrics Society*, **51**, 44–49.
- Moos, R. H., Schutte, K. K., Brennan, P., *et al* (2009) Older adults' alcohol consumption and late life drinking problems: a 20 year perspective. *Addiction*, **104**, 1293–1302.
- Morgan, G. D., Noll, E. L., Orleans, C. T., *et al* (1996) Reaching midlife and older smokers: tailored interventions for routine medical care. *Preventive Medicine*, **25**, 346–354.
- Moy, I., Frisher, M., Crome, P., *et al* (2011) Systematic review of treatment for older people with substance problems. *European Geriatric Medicine*, in press.
- Mulder, R. T. (2002) Alcoholism and personality. *Australian & New Zealand Journal of Psychiatry*, **36**, 44–52.
- National Collaborating Centre for Mental Health (2007a) *Drug Misuse: Psychosocial Interventions (NICE Clinical Practice Guideline 51)*. NICE.
- National Collaborating Centre for Mental Health (2007b) *Drug Misuse: Opioid Detoxification (NICE Clinical Practice Guideline 52)*. NICE.
- National Collaborating Centre for Mental Health (2011) *Alcohol Use Disorders: Diagnosis, Assessment and Management of Harmful Drinking and Alcohol Dependence (National Clinical Practice Guideline 115)*. NICE (<http://guidance.nice.org.uk/CG115>).
- National Institute for Health and Clinical Excellence (NICE) (2007a) *Methadone and Buprenorphine for the Management of Opioid Dependence (NICE Technology Appraisal Guidance 114)*. NICE.
- National Institute for Health and Clinical Excellence (NICE) (2007b) *Naltrexone for the Management of Opioid Dependence (NICE Technology Appraisal Guidance 115)*. NICE.
- National Institute for Health and Clinical Excellence (2010) *Alcohol-use Disorders: Preventing the Development of Hazardous and Harmful Drinking (NICE Public Health Guidance 24)*. NICE (<http://www.nice.org.uk/nicemedia/live/13001/48984/48984.pdf>).
- National Institutes of Health (2005) *Helping Patients Who Drink Too Much: A Clinician's Guide*. NIH.
- National Collaborating Centre for Chronic Conditions (2010) *Alcohol-use Disorders: Diagnosis and Clinical Management of Alcohol-related Physical Complications (NICE Clinical Guideline 100)*. NICE.
- National Statistics (2003) *People Aged 65 and Over: Results from the 2001 General Household Survey*. National Statistics (<http://www.statistics.gov.uk/pdfdir/ove0603.pdf>).
- National Treatment Agency for Substance Misuse (2006) *Models of Care for Alcohol Misusers (MoCAM)*. NTA.
- National Treatment Agency for Substance Misuse (2010a) *Drug Treatment in 2009–10*. NTA ([http://www.nta.nhs.uk/uploads/nta\\_annualreport\\_0910.pdf](http://www.nta.nhs.uk/uploads/nta_annualreport_0910.pdf)).

- National Treatment Agency for Substance Misuse (2010b) National Treatment Agency to join Public Health Service. NTA (<http://www.nta.nhs.uk/nta-join-phs-jul10.aspx>).
- NHS Information Centre (2009a) *Statistics on Alcohol: England, 2009*. Health and Social Care Information Centre (<http://www.ic.nhs.uk/webfiles/publications/alcoholeng2009/Final%20Format%20draft%202009%20v7.pdf>).
- NHS Information Centre (2009b) *Statistics on Drug Misuse: England, 2009*. Health and Social Care Information Centre ([http://www.ic.nhs.uk/webfiles/publications/drugmisuse09/Statistics\\_on\\_Drug\\_Misuse\\_England\\_2009\\_revised.pdf](http://www.ic.nhs.uk/webfiles/publications/drugmisuse09/Statistics_on_Drug_Misuse_England_2009_revised.pdf)).
- NHS Information Centre (2010) *Statistics on Alcohol: England, 2010*. The Health and Social Care Information Centre.
- O'Connell, H. & Lawlor, B. (2008) Alcohol and substance abuse in older people. In *Oxford Textbook of Old Age Psychiatry* (eds R. Jacoby, C. Oppenheimer, T. Dening, et al): pp. 641–661. Oxford University Press.
- O'Connell, H., Chin, A., Cunningham, C., et al (2003) Alcohol use disorders in elderly people: redefining an age-old problem in old age. *BMJ*, **327**, 664–667.
- O'Connell, H., Chin, A. V., Hamilton, F. et al (2004) A systematic review of the utility of self-report alcohol screening instruments in the elderly. *International Journal of Geriatric Psychiatry*, **19**, 1074–1086.
- Office for National Statistics (2004) *National Population Projections: 2002-based*. TSO (The Stationery Office).
- Office for National Statistics (2009a) *Alcohol deaths: UK rates fall in 2009*. ONS (<http://www.statistics.gov.uk/cci/nugget.asp?id=1091>).
- Office for National Statistics (2009b) *Deaths Related to Drug Poisoning in England and Wales, 2008 (Statistical Bulletin Report)*. ONS (<http://www.statistics.gov.uk/pdfdir/dgdths0809.pdf>).
- Oppenheimer, E., Tobutt, C., Taylor, C., et al (1994) Death and survival in a cohort of heroin addicts from London clinics: a 22-year follow-up. *Addiction*, **89**, 1299–1308.
- Oslin, D., Atkinson, R. M., Smith, D. M., et al (1998) Alcohol-related dementia: proposed clinical criteria. *International Journal of Geriatric Psychiatry*, **13**, 203–212.
- Oslin, D. W. & Holden, R. (2001) Recognition and assessment of alcohol and drug dependence in the elderly. In *Treating Alcohol and Drug Abuse in the Elderly* (eds A. M. Gurnack, R. Atkinson R. & N. J. Osgood): pp. 11–31. Springer Publishing Company.
- Oslin, D. W., Pettinati, H. & Volpicelli, J. R. (2002) Alcoholism treatment adherence: old age predicts better adherence and drinking outcomes. *American Journal of Geriatric Psychiatry*, **10**, 740–746.
- Oslin, D. W., Slaymaker, V. J., Blow, F. C., et al (2005) Treatment outcomes for alcohol dependence among middle-aged and older adults. *Addictive Behaviour*, **30**, 1431–1436.
- Peppers, M. P. (1996) Benzodiazepines for alcohol withdrawal in the elderly and in-patients with liver disease. *Pharmacotherapy*, **16**, 49–57.
- Peto, R., Darby, S., Deo, H., et al (2000) Smoking, smoking cessation, and lung cancer in the UK since 1950: combination of national statistics with two case-control studies. *BMJ*, **321**, 323–329.
- Piccinelli, M., Tessari, E., Bortolomasi, M., et al (1997) Efficacy of the Alcohol Use Disorders Identification Test as a screening tool for hazardous alcohol intake and related disorders in primary care: a validity study. *BMJ*, **314**, 420–424.
- Prigerson, H. G., Desai, R. A. & Rosenheck, P. A. (2001) Older adult patients with both psychiatric and substance abuse disorders: prevalence of health service use. *Psychiatric Quarterly*, **72**, 1–18.
- Raw, M., McNeill, A. & West, R. (1998) Smoking cessation guidelines for health professionals: a guide to effective smoking cessation interventions for the health care system. *Thorax*, **53** (suppl. 5), S1–37.
- Reay, A. M. C & Browne, K. D. (2001) Risk factor characteristics in carers who physically abuse or neglect their elderly dependants. *Aging and Mental Health*, **5**, 56–62.
- Reid, M. C., Tinetti, M. E., O'Connor, P. G., et al (2003) Measuring alcohol consumption among older adults: a comparison of available methods. *American Journal on Addictions*, **12**, 211–219.

- Rimer, B. K., Orleans, C. T., Keintz, M. K., *et al* (1990) The older smoker: status, challenges and opportunities for intervention. *Chest*, **97**, 547–553.
- Rosen, D. (2004) Factors associated with illegal drug use among older methadone clients. *Gerontologist*, **44**, 543–547.
- Royal College of Physicians (1995) Alcohol and the heart in perspective: sensible limits reaffirmed. A Working Group of the Royal Colleges of Physicians, Psychiatrists and General Practitioners. *Journal of the Royal College of Physicians of London*, **29**, 266–271.
- Royal College of Physicians & Royal College of Psychiatrists (2001) *Role of Consultants with Responsibility for Substance Misuse (Addiction Psychiatrists): Position Statement by the Faculty of Substance Misuse* (Council Report CR97). Royal College of Psychiatrists.
- Royal College of Psychiatrists (2004) *Psychiatric Services to Accident and Emergency Departments* (Council Report CR118). Royal College of Psychiatrists.
- Royal College of Psychiatrists (2005) *Roles and Responsibilities of Doctors in the Provision of Treatment for Drug and Alcohol Misusers* (Council Report CR131). Royal College of Psychiatrists.
- Royal College of Psychiatrists (2009) *Age Discrimination in Mental Health Services: Making Equality a Reality* (Position Statement PS2/2009). Royal College of Psychiatrists.
- Satre, D. D., Mertens, J., Arean, P. A., *et al* (2003) Contrasting outcomes of older versus middle-aged and younger adult chemical dependency patients in a managed care program. *Journal of Studies on Alcohol*, **64**, 520–531.
- Satre, D. D., Mertens, J., Arean, P. A., *et al* (2004a) Five-year alcohol and drug treatment outcomes of older adults versus middle-aged and younger adults in a managed care program. *Addiction*, **19**, 1286–1297.
- Satre, D., Mertens, J. R. & Weisner, C. (2004b) Gender differences in treatment outcomes for alcohol dependence among older adults. *Journal of Studies on Alcohol*, **65**, 638–642.
- Saunders, J. B., Aasland, O. G., Babor, T. F., *et al* (1993) Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption – II. *Addiction*, **88**, 791–804.
- Saunders, P. A., Copeland, J. R. M., Dewey, M. E., *et al* (1989) Alcohol use and abuse in the elderly: findings from the Liverpool longitudinal study of continuing health in the community. *International Journal of Geriatric Psychiatry*, **4**, 103–108.
- Schonfeld, L. & Dupree, L. W. (1994) Alcohol abuse among older adults. *Reviews in Clinical Gerontology*, **4**, 217–225.
- Schroeder, K., Lawlor, D., Montaner, D., *et al* (2006) Self-reported smoking cessation interventions were not associated with quitting in older women. *Journal of Clinical Epidemiology*, **59**, 622–628.
- Schutte, K. K., Nichols, K. A., Brennan, P. L., *et al* (2003) A ten-year follow-up of older former problem drinkers: risk of relapse and implications of successfully sustained remission. *Journal of Studies on Alcohol*, **64**, 367–374.
- Seeking Solutions Project (2004) Alcohol and other substance use withdrawal. *Best Practices*, **7**, 1–6.
- Seymour, R. & Booth, L. (2010) *Statistics on Smoking*. House of Commons Library (<http://www.parliament.uk/briefingpapers/commons/lib/research/briefings/snsg-03312.pdf>).
- Sgouros, X., Baines, M., Bloor, R. N., *et al* (2004) Evaluation of a clinical screening instrument to identify states of thiamine deficiency in inpatients with severe alcohol dependence syndrome. *Alcohol and Alcoholism*, **39**, 227–232.
- Simoni-Wastila, L. & Yang, H. K. (2006) Psychoactive drug abuse in older adults. *American Journal of Geriatric Pharmacotherapy*, **4**, 380–394.
- South West Public Health Observatory (2008) *Calling Time: Reducing Alcohol Harm in the South West – A Blueprint for Joint Action*. South West Public Health Observatory.
- U.S. Department of Health and Human Services (1998) *Substance Abuse among Older Adults (Treatment Improvement Protocol (TIP) Series No. 26)*. U.S. Department of Health and Human Services.



- U.S. Department of Health and Human Services (2005) *Helping Patients Who Drink Too Much: A Clinician's Guide*. National Institute on Alcohol Abuse and Addiction.
- van der Weele, G. M., Rikkert, M. G. O., Eizenga, W. H., *et al* (2003) Summary of the Dutch College of General Practitioners' practice guideline 'Delirium in elderly people'. *Nederlands Tijdschrift voor Geneeskunde*, **147**, 965–969.
- Vetter, N. J. & Ford, D. (1990) Smoking prevention among people aged 60 and over: a randomised controlled trial. *Age and Ageing*, **19**, 164–168.
- Waller, T. & Rumball, D. (2004) *Treating Drinkers and Drug Users in the Community*. Blackwell Publishing.
- Wesson, J. (1992) *The Vintage Years: Older People and Alcohol*. Aquarius.
- Wetterling, T., Driessen, M., Kanitz, R. D., *et al* (2001) The severity of alcohol withdrawal is not age dependent. *Alcohol and Alcoholism*, **36**, 75–78.
- Whelan, G. (2003) Alcohol: a much neglected risk factor in the elderly mental disorders. *Current Opinion in Psychiatry*, **16**, 609–614.
- Wojnar, M., Wasilewski, D., Zmigrodzka, I., *et al* (2001) Age-related differences in the course of alcohol withdrawal in hospitalised patients. *Alcohol and Alcoholism*, **36**, 577–583.
- World Health Organization (1992) *The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines*. WHO.



# Our invisible addicts

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Working Group of the Royal College of Psychiatrists

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