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Substance misuse in older people: an information guide

Older Persons' Substance Misuse
Working Group

FACULTY REPORT

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Foreword

The publication of *Our Invisible Addicts* (Royal College of Psychiatrists, 2011) has heralded a growing awareness of substance misuse in older people. Increasing rates of licit and illicit drug use and misuse, together with large rises in alcohol-related hospital admissions and mortality, highlight the clinical and public health costs of addiction in this overlooked group.

Only 6–7% of high-risk people with substance misuse problems over 60 years of age receive the treatment that they require. Although older people are less likely to complain of a substance problem and are more likely to have mild dependence, they are also more likely to be motivated to abstain when compared with younger adults. Ageism, denial, stereotyping, non-specific symptoms and complex multiple diagnoses, in addition to stigma, shame and isolation, are common features of substance use in older people. However, since older people are more often in contact with the healthcare system than younger groups, we have significant opportunities to identify substance misuse. Furthermore, there is considerable optimism in the findings of clinical studies: older people want to change, have the capacity to change, can be effectively treated with approaches similar to those offered to younger patients and have outcomes at least as favourable – if not better – than younger adults have. It is therefore imperative that older people should not be denied treatment on the basis of their age.

Individual practitioners, the services that they lead, and families and carers are often ill-equipped to deal with this hidden epidemic. Training is a key component underpinning high-quality services for

this group of patients in all medical and social care settings.

Owing to the complexity of this group of patients, practitioners may not have a full complement of knowledge, skills and attitudes to deliver a clinically responsive and effective service. This guide aims to introduce professionals who have not had the benefit of systematic training in substance misuse, particularly those in old age psychiatry and geriatric medicine, to this developing and challenging field. It outlines the key components of age-sensitive treatment: a comprehensive biopsychosocial assessment; the development of treatment plans and appropriate goals; regular monitoring; and the management of comorbid conditions such as pain, cognitive impairment and depression.

It also addresses how the most common comorbid conditions that influence treatment outcome can be better managed by protocols for referral to addiction and geriatric services. These protocols are central to the needed care pathways, including care coordination and psychosocial and pharmacological interventions.

The guide details how older people can be offered treatments that are of proven effectiveness, adapted to their needs and supervised by a multidisciplinary team that has specific expertise in addiction and ageing. The early detection and effective treatment of substance misuse in older people is a collective responsibility involving both professionals and the public. The guide highlights much needed improvements in care to help older people recover from substance misuse and live healthier lives. Age must not be a barrier to accessing effective treatment.

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Introduction

In 2011, the Older Persons' Substance Misuse Working Group of the Royal College of Psychiatrists published its first report, *Our Invisible Addicts* (Royal College of Psychiatrists, 2011). It highlighted not only the unmet need of older people with substance misuse, but also the lack of information for, and joint working by, professionals who encounter older people with drug and alcohol problems in their everyday practice. One of the main recommendations of the report was the provision of comprehensive and up-to-date information on the assessment, treatment and care of older people with substance misuse. Such information would guide all professionals working in health and social care in managing substance misuse in older people presenting to a range of settings with a range of clinical presentations. It was also the intention of such guidance to generate a seamless clinical interface between professionals, particularly in managing the 'patient journey' through different services.

In some countries, such as the USA, older people are defined as those aged 40 years and over. However, for the purposes of this guide, the term 'older people' refers to those aged 65 and over, as this is the definition that applies to the majority of clinical services in the UK. There are also different ways of classifying substance misuse: the ICD system is the most commonly used in the UK and Europe and DSM-5 is used in the USA. Although not identical, there is considerable overlap between the two. Although the range of clinical presentations from substance misuse is combined within a single category of 'substance use disorders', the original criteria for diagnosing substance misuse remain unchanged from DSM-IV. The DSM-IV criteria need special consideration when applied to older people (Table 1). This has been taken into account in the guide.

The guide has been developed by experts working across healthcare, social care and the voluntary

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

Criteria	Special considerations for older adults
Tolerance	Even low intake might cause problems owing to physiological changes
Withdrawal	May not develop physiological dependence
Taking larger amounts or over a longer period than was intended	Cognitive impairment can interfere with self-monitoring
Unsuccessful efforts to cut down or control use	Reduced social pressures to decrease harmful use
Increased time spent obtaining substances or recovering from effects	Negative effects can occur with relatively low use
Giving up activities because of use	Decreased activities because of comorbid psychiatric and physical disorder Social isolation and disability making detection more difficult
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

Source: adapted from Blow (1998).

sector: old age and addiction psychiatry, care of the elderly medicine, primary care and voluntary sector organisations experienced in caring for older people with substance misuse (e.g. Alcohol Concern, Age UK, DrugScope and Adfam). We aimed to strike a balance between 'guidance' and 'guidelines'. Where possible, we have followed the definition of clinical practice guidelines as 'systematically developed statements that assist clinicians and patients in making decisions about appropriate treatment for specific conditions' (Mann, 1996). Such guidelines are based on the best available and most up-to-date research evidence or, in the absence of available evidence, by consensus expert opinion.

A caveat for the guide is drawn from *Practice Standards for Young People with Substance Misuse Problems* (Royal College of Psychiatrists, 2012): 'There is invariably a dilemma in developing guidance that is based on a limited evidence base. However, there is a valid case for strengthening empirical evidence with expertise based on clinical practice that is pragmatic and patient-centred.'

As well as guiding professionals in decision-making processes, the guide is intended as a basis for further education, training and research. The guide is intended for use primarily by healthcare and social care professionals, but will also inform commissioners, researchers, educators, policy makers and other external stakeholders, such as professionals working in the voluntary and private sector (Appendix 1).

Context of the guide

How older people with substance misuse fit in with existing policy was given consideration in *Our Invisible Addicts* (Royal College of Psychiatrists, 2011), but there have been further developments in alcohol misuse since its publication. The first of these was the publication of good practice commissioning guidance from the National Institute for Health and Care Excellence (NICE, 2011a). The guidance drew attention to the need for lower thresholds for high-risk groups (including older people) when commissioning in-patient and residential medically assisted alcohol withdrawal services. It was supplemented by examples of good practice when commissioning for older

people, such as community-based interventions, addressing complex needs, equality of access to services and patient experience.

A turning point in alcohol policy came when NICE (2012) released a public health briefing to support local government in its public health role, which includes leadership of health and well-being boards, with the remit of commissioning prevention and treatment interventions for substance misuse. As of April 2013, public health functions and those functions previously held by the National Treatment Agency were formally transferred to local authority health and well-being boards. This brought the responsibility for commissioning substance misuse services for health improvement under the aegis of the directors of public health. The boards have now begun strategic planning through joint strategic needs assessments and joint health and well-being strategies. Only time can tell how effective these strategies will prove in improving the health and social outcomes of older people with substance misuse.

Terms of reference

In line with the 2011/2012 National Health Service (NHS) outcomes framework (Department of Health, 2010), the main terms of reference of this guide are:

- preventing people from dying prematurely
- enhancing the quality of life of people with long-term conditions, including comorbid mental and physical disorders.

Aims

- To examine the evidence and make recommendations for good practice that cover a wide range of problems relating to assessment, treatment and care in different settings for older people with substance misuse.
- To assist clinical decision-making, paying specific attention to the physical and psychosocial aspects of ageing.
- To improve health and social outcomes, reduce harm from substance misuse and promote recovery and community integration through the provision of high-quality care.

Other principles

- Focusing on the whole person and the complex relationship between ageing and substance misuse.
- Being a practical guide that incorporates clinical encounters of varying complexity.
- Highlighting learning points from each clinical encounter.
- Focusing on problems and settings rather than disorders *per se*.
- Using vignettes, algorithms for care pathways and signposting to best practice.
- Identifying individual, organisational and systemic barriers and how these can be addressed and overcome.
- Ensuring that the guide complements professional knowledge and clinical judgement.

Structure of the guide

The guide offers a comprehensive approach to the assessment, treatment and care of older people

with substance misuse. It is divided into two main sections. Part 1 covers general approaches, encompassing initial assessment, psychosocial interventions, family and carer support, legal and ethical aspects, case management and care planning. In Part 2, a more specialised approach is taken, focusing on emergency physical and psychiatric presentations, withdrawal syndromes, community management of the long-term effects and maintenance treatment of substance misuse, alcohol-related brain injury, the recovery model, older women and alcohol problems, drug interactions, and driving and substance misuse.

Most chapters include a case study and learning points, summary of the evidence base (where any exists) and draw on expert opinion with recommendations for practice. Where possible, algorithms are used to guide assessment and treatment. This format is supplemented by further signposting to other information sources, where appropriate. Above all, the guide is intended to offer a practical approach to everyday clinical encounters with older people with problems associated with substance misuse.

Initial assessment of substance misuse in older people

History-taking

- A non-judgemental and non-ageist approach, combined with respect for dignity and individuality, is essential.
- Take into account the values and experiences of the patient.
- Adjust the tempo of the assessment according to the needs of the patient, taking into consideration factors such as seating position and comfort, sensory impairment, clouding of consciousness, level of comprehension, cognitive impairment and privacy.
- Presentation can be atypical and clues can be found in what is not mentioned but suspected in the way that they fit in with the rest of the clinical picture.
- Underreporting may occur because of denial, stigma, lack of awareness or memory impairment.
- Additional information from other sources is invaluable.
- Assessment will lead to a formulation and management plan that takes into account multiple comorbidities, functional abilities, the influence of loss events on mood state, cognitive state (including the influence of substances and physical disorders) and social support.
- Multiple assessments are often required to build up a clinical picture, including the need for vigilance about safeguarding.

Systematic assessment

A systematic assessment should include the following factors.

- Age, gender, ethnicity, living arrangements, living environment (emphasising the importance of home visits to gain a full clinical picture of disability and vulnerability).
- Presenting problem (may be masked and requires a flexible approach).
- Discuss substances separately (alcohol/nicotine/over the counter/prescribed/illicit).
- Age at first use, weekend, weekly and daily use.
- Age of development of dependence syndrome.
- Maximum use and when/how long.
- Pattern (quantity/frequency) over day/week.
- Access to alcohol.
- Drinking or drug-taking environment (e.g. home drinking, drinking partners, sharing medications).
- Route of use.
- Cost/funding.
- Abstinence/relapse and link to stability/life events.
- Preferred substance(s).
- Treatment (dates, service, intervention, outcome).
- Individual and family psychiatric history.
- Occupational and psychosexual history.

- Medical history (especially known complications from substance and effects on any existing age-related impairment; interactions with medications).
- History of sleep problems.
- Forensic history (especially public order and acquisitive offences).
- Risk of falls, social/cultural isolation, financial abuse.
- Activities of daily living, statutory/voluntary/private care.
- Level of nutrition: can they cook for themselves? Are they neglecting their diet? Do they have dental problems that limit the amount of food they can eat?
- Social support from informal carers and friends.
- Social pressures: from debt, substance-using 'carers', open drug dealing.

Collateral information

The following are possible sources of collateral information.

- Relatives, friends and informal carers (taking account of information-sharing and confidentiality).
- General practitioner (GP) consultations and medication.
- Hospital discharge summaries.
- Home carer reports.
- Day centre reports.
- Reports from housing officers/wardens of supported housing.
- Criminal justice agencies.
- Results from previous investigations (including cognitive testing and neuroimaging).

Assessment and identification

Clinical staff should be able to detect the acute and chronic effects of substances, including intoxication, overdose, withdrawal and dependence. Extra attention needs to be paid to physical disorders

such as hypertension and diabetes mellitus and disorders affecting mobility. Assessors should also be vigilant over interactions with prescribed and over-the-counter medication.

There are several barriers to assessment in the detection of substance misuse. Ageism may result in problems with sleep and appetite being attributed to lifelong insomnia or long-standing poor food intake. Older people may also underreport their substance misuse as a consequence of stigma. In busy clinical settings, the clinical signs of substance misuse, such as lack of energy and changes in mood, may be misattributed to depression or physical illness. Lastly, a lower level of detection may be attributable to stereotyping, such as overlooking substance misuse in older women, a group in which substance misuse is often assumed to be an uncommon occurrence.

It is crucial to identify the factors that make substance misuse more likely. Some of these are as common with younger people, such as homelessness, a history of substance misuse and depression. Others are more likely with older people, such as bereavement, retirement, social isolation and immobility. When taking a history, it is common for patients to have multiple interacting problems; these frequently present in an atypical manner, such as behavioural problems rather than typical withdrawal symptoms. Problems more commonly encountered in older people are instability and falls, incontinence, cognitive impairment and issues associated with poor nutrition. Assessments are also typically more challenging than in younger people, because of the greater length of time and care required to examine sight, hearing and language deficits.

Case study 1

Anjelica, a 72-year-old, single, retired personal assistant with high educational attainment, was referred to a community old age psychiatry team following concerns over low mood and deterioration in self-care. She had attended her GP practice on four occasions over the previous 2 months, complaining of feeling 'under the weather'. A diagnosis of depressive disorder was made and she was followed up in the community. There was little response to antidepressant treatment and she was admitted on two separate occasions for in-patient assessment over the next 12 months, during which her mood improved within a few days of admission and no

noticeable physical or psychosocial maintaining factors were found. There were also no abnormalities on a routine blood screen. At a home visit following her second admission, a chance enquiry was made about her alcohol intake and she reported that she had been drinking at least 1 bottle of whiskey per week. A brief intervention was delivered and further visits used a motivational interviewing framework to assess readiness to change her drinking behaviour. Anjelica was discharged 3 months later, at which point she had been abstinent for 3 months. No further referrals were made to the community mental health team.

Screening

At present, screening instruments for substance misuse in older people are confined to those that identify alcohol misuse. The CAGE questionnaire allows a rapid screen to detect the core features of alcohol dependence but is relatively insensitive to harmful/hazardous drinking (Adams *et al*, 1996).

The most widely used age-specific screening tool, the Short Michigan Alcoholism Screening Test – Geriatric version (SMAST-G; Blow *et al*, 1998), has been validated for use in older hospital in-patients. Its questions tap into problems more commonly seen in older people, such as ‘drinking after a significant loss’ or ‘drinking to take your mind off your problems’. Various adaptations of the Alcohol Use Disorders Identification Test (AUDIT) tool (Saunders *et al*, 1993) have been validated in older populations (Roberts *et al*, 2005), with greatest sensitivity and specificity shown in these versions with a cut-off score of 5 for older men and 3 for older women, using the full AUDIT. These adaptations include the AUDIT-5, a five-item version of the full AUDIT (Piccinelli *et al*, 1997), which has performed well in the screening of older mentally ill people (Philpot *et al*, 2003) and the AUDIT-C, which asks only the three questions of the full AUDIT that assess drinking pattern (Bush *et al*, 1998). Suggested cut-off points for the AUDIT-5 (Philpot *et al*, 2003) and AUDIT-C (Aalto *et al*, 2011) are 4 for both instruments. However, these have not undergone extensive replication in older people.

Given a lack of sensitive screening tools for alcohol problems in older people, such tools need to be combined with quantity/frequency measures and

a comprehensive assessment that covers use, misuse and dependence.

Mental state examination

The most common presentations in the context of substance misuse in older people are delirium, mood disorders, cognitive impairment and psychotic symptoms. Delirium may be associated with intoxication or withdrawal states. Recognising delirium tremens in acute hospital settings is especially important, as it has a high morbidity and mortality when untreated. Those at risk before or in the earliest stages of withdrawal require appropriate detoxification plans and nutritional support. Wernicke’s encephalopathy may also present with signs of delirium.

Low mood and anxiety can accompany the misuse of a range of substances, particularly alcohol, sedatives and hypnotics. It is not uncommon to find an atypical presentation of symptoms suggestive of a mood disorder. Mood disorders may be masked by cognitive impairment or ‘somatised’ by presenting as physical symptoms such as lack of energy.

The presence of multiple physical comorbidities can make the detection of depression and anxiety more problematic, particularly as the somatic symptoms of depression are also associated with physical disorders such as rheumatological and neurological disease. Detecting mood disorders, then, focuses on cognitive and behavioural symptoms such as poor concentration, pessimism, suicidal ideation and irritability. The detection of alcohol misuse is particularly important in older people at the highest risk of completed suicide; alcohol misuse often accompanies the worsening of depressive symptoms and lowers impulse control, and is thereby likely to facilitate the suicidal act.

Cognitive impairment associated with alcohol misuse might present as alcohol-related brain injury in the form of amnesic disorders confined to memory impairment, or as alcohol-related dementia where there is a more global loss of cognitive function. In either case, cognitive function must be screened using a tool covering a range of cognitive domains such as the Mini Mental State

Examination (MMSE; Folstein *et al*, 1975). However, it should be borne in mind that this screening tool does not assess functioning of the frontal lobe, which is known to be more sensitive than other brain areas to the initial effects of alcohol toxicity (Zahr *et al*, 2011). If a more comprehensive assessment of cognitive function is required, the Addenbrooke's Cognitive Examination is a good option (Mioshi *et al*, 2006).

Psychotic symptoms can be associated with the acute effects of a variety of substances, such as cannabinoids, stimulants and hallucinogens; withdrawal states accompanying alcohol, sedatives and hypnotics are also commonly associated with transient psychotic symptoms.

Physical examination

The following areas should be covered in a routine physical examination.

- Frailty (might not appear immediately obvious, especially when patients are fully clothed).
- Self-care and hygiene.
- Gait and balance.
- Use of walking aids.
- Inspection of all the skin (including the genital areas) for any injury, pressure area breakdown, damage from incontinence and ulceration.
- Tar staining of the fingers and hair as evidence for tobacco use and nicotine addiction.
- Stigmata of chronic liver disease, such as palmar erythema, spider naevi, caput medusa or jaundice (in alcohol misuse or exposure to the hepatitis C from needle sharing). These stigmata might also be accompanied by a macronodular liver, liver tumour or ascites.
- Psoriasis is associated with alcohol misuse, as is skin carcinoma and porphyria cutanea tarda (also prevalent in hepatitis C).
- Injecting drugs is associated with thrombosis of superficial and deep veins, ulceration and sinus formation. In bacterial endocarditis, which can result from injecting drugs, immune complex deposits can lead to nail fold infarcts, splinter haemorrhages and Osler's nodes in the pulps of the digits. Janeway lesions

(tender nodules in the palms or soles) are due to septic emboli.

- HIV infection in older people who misuse intravenous drugs is associated with cutaneous manifestations such as a macular rash in seroconversion, increased rates of bacterial, viral and fungal infections, higher rates of skin cancers, higher rates of drug reactions and specific reactions to antiretroviral therapy. Psoriasis and seborrhoeic dermatitis are also seen.
- Poor nutrition might be evident from gum disease and dental caries, or the cork-screw-shaped body hair seen in scurvy (vitamin C deficiency). Methamphetamine use is particularly associated with dental problems.
- Respiratory complications from tobacco and cannabis often present as chronic obstructive pulmonary disease, with pursed-lipped breathing, barrel-shaped chest or pulmonary hypertension.
- Both smoking and alcohol misuse may give rise to hypertension. This may, in turn, increase the likelihood of ischaemic heart disease, vascular disease, heart failure and stroke. Some stimulant drugs, particularly cocaine, can induce myocardial infarction and stroke.
- Rectal examination might reveal pale stools, indicative of the malabsorption associated with pancreatic insufficiency.
- Complications from HIV are also common.
- Neurological manifestations of alcohol and drug misuse are associated with traumatic intracerebral bleeding, sometimes without evidence of external injury.
- Alcohol might be associated with injuries in acute intoxication, as well as with cerebellar syndrome and peripheral neuropathy (seen in harmful drinking and alcohol dependence).

Functional status is a necessary component of any comprehensive assessment of an older person, given the impact of ill health on both acute and chronic functional status. Such an assessment should cover both personal and instrumental (domestic) activities of daily living (ADLs), complemented by an account of a typical day.

Most assessment scales cover a variety of set functions, such as in the Barthel Index (Mahoney, 1965). The Barthel Index rates an individual's ability to perform a number of ADLs, such as feeding, toilet use, mobility and transfers. In most geriatric ward settings, ADLs commonly fall to occupational therapists, with contributions from physiotherapists (gait, balance, endurance) and sometimes speech and language therapists (swallowing as well as communication). Nursing staff are skilled in the assessment of continence or medication management, and also are best placed to inform the rest of the team about ADLs, particularly at night time.

Investigations

The majority of investigations should be triggered by clinical questions arising from the history, examination and functional assessment. However, it is imperative to carry out standard biochemistry screening covering renal, liver and bone function, a full blood count and thyroid function tests – the last being essential as hypothyroidism becomes more common as people age.

Referral to other services

Given that it is common for older people with substance misuse to be assessed and treated in both parallel and sequential patterns within services, appropriate referral is key to reducing harm and improving the quality of care, patient experience, and health and social outcomes. Within a model of coordinated care, it is of central importance that there is a lead service with a defined care coordinator or equivalent. The scope for statutory

and voluntary agencies to work together is considerable. The former include geriatrics, old age psychiatry, addictions, psychology and primary care and the latter include those supporting older people with alcohol and drug misuse or families affected by substance misuse.

Learning points

- Obtaining a comprehensive history of substance misuse and its context requires a careful, considered, systematic assessment that covers a wide range of information and takes into account the likelihood of a complex clinical picture and the possibility of underreporting.
- There is wealth of collateral information that can be collected to inform diagnosis, treatment and care planning.
- Screening for alcohol misuse requires instruments that combine measures of quantity and frequency, and a focus on problems more often encountered in older people.
- Delirium, mood disorders, cognitive impairment and psychotic disorders are the most common psychiatric presentations in substance misuse and a comprehensive assessment should consider all of them.
- Physical examination for signs associated with substance misuse should include a general inspection and vigilance when examining body systems associated with complications from specific substances.
- Appropriate investigation of and referral to other services should identify a lead service that will offer an integrated and coordinated approach to care.

Psychosocial interventions for substance misuse in older people

Identification and brief intervention

Older people experiencing or at risk of alcohol-related harm can change their drinking after brief interventions that can be provided in generalist services (Fleming *et al*, 1999; Mundt *et al*, 2005). The evidence is not so clear about whether this approach will benefit older drug users, but brief interventions offer a logical starting point for all people with substance misuse problems. This section shows how these approaches can be applied as a model for helping older problem drinkers.

Identification

The people who will benefit most from brief interventions are the high-risk drinkers: people who are drinking at risky levels but are not yet dependent on alcohol. It is likely that the majority of these people will be seen by someone in the health, social care, housing or criminal justice sectors each year.

The starting point for a brief intervention is screening to identify these high-risk drinkers. The ten-question AUDIT is the best-evaluated alcohol screening tool available (Babor *et al*, 2001). It was developed by the World Health Organization and focuses on the preliminary signs of increasing and high-risk drinking. It can be easily incorporated into a general health or social care assessment, lifestyle questionnaire or medical history and can be used with patients of all ages and in a wide variety of settings.

Ideally, workers should screen all service users. During the relationship with service users, a number of opportunities will be available to introduce the AUDIT tool and it is readily incorporated into standard paperwork:

- as part of an initial assessment
- as part of an initial care planning session or a review
- before a break or change in care
- at the end of the care relationship.

It can be difficult to know how to start a conversation about someone's drinking, but there are many ways in which screening can be introduced:

- 'As part of a new government campaign, we've been asked to screen everyone of drinking age'
- 'This is part of a health check-up to make sure we're meeting all your needs'
- 'During this initial assessment we want to make sure that we can put you in contact with any support you might want, so I'm going to ask you about different aspects of your lifestyle'
- 'Alcohol has been in the media a lot lately, so I'm going to ask you a few questions about your alcohol use'.

Shorter versions of the AUDIT, such as the AUDIT-C, can be used in situations where time is very restricted. In primary care, new patients can be screened with AUDIT-C. However, if a patient is positive on the shorter version, they should then be screened using the full tool to provide a

more reliable result. As mentioned previously, an optimal cut-off score for the AUDIT is 5 for older men and 3 for older women; for the AUDIT-C, the recommended cut-off is 4 for both men and women. Assessors should note these lower cut-off points might be associated with substance misuse (Roberts *et al*, 2005), emphasising the importance of triangulating scores with a complete assessment.

Brief intervention

Brief interventions comprising advice following screening have been well researched and evaluated in adults. One in eight appropriate recipients of brief advice make changes to their drinking and it can help patients reduce their alcohol consumption by up to 20%. Brief advice can be:

- a sentence or two of feedback about their drinking based on their AUDIT score and the person's circumstances
- a sentence or two of feedback, plus a patient information leaflet
- 5 min of advice based on the FRAMES structure (Miller, 1996).

The FRAMES structure suggests that, along with basic information about alcohol, the patient could be given brief advice covering six essential elements.

- 1 **Feedback:** give structured and personalised feedback on risk and harm.
- 2 **Responsibility:** place the emphasis on the patient's personal responsibility for change.
- 3 **Advice:** give advice to the patient on making a change in drinking habits.
- 4 **Menu:** provide a menu of strategies for making a change.
- 5 **Empathy:** use an empathic and non-judgemental approach.
- 6 **Self-efficacy:** attempt to increase the patient's confidence in being able to change behaviour.

Risky drinking is a complex behaviour, and it is not the practitioner's responsibility to change the behaviour of every risky, high-risk or dependent drinker. All that is being asked is that workers routinely screen their patients and give brief advice to

those who score positively. If everyone assessing an older person could screen them for alcohol use and offer brief advice to those who score above the cut-off point, the proportionate reduction in drinking would have a significant impact on costs in health, social care and the criminal justice system (Schonfeld *et al*, 2014).

The identification of alcohol-related harm and the offer of help is good practice that should be implemented by all agencies working with this age group. It is hard to see how a doctor could prescribe, a social worker could develop a care plan or a probation officer could assess an offender without asking whether alcohol were having an impact on their life. Although there is no tool comparable to the AUDIT that has been validated in older drug users, the same brief advice approach can be used as a starting point for behaviour change.

Motivational interviewing

Developed in the 1980s, motivational interviewing uses familiar techniques, such as active listening, summarising and reflection, to guide people towards positive change (Miller & Rollnick, 2002). It specifically avoids confrontation. Motivational interviewing can be linked to the stages of change model (Prochaska *et al*, 1992). Motivational interviewing facilitates change through techniques such as 'developing discrepancy', in which the interviewer attempts to explore the conflict between the patient's desires and wishes and the behaviour that might be sabotaging the achievement of those goals. A guide such as this one cannot teach motivational interviewing, but training courses are widely available and anyone working with people with substance misuse issues would benefit from acquiring these skills. The resistance and ambivalence to change in substance misuse should be recognised within such courses.

Summary

There is still very little service provision for older people with alcohol misuse problems. Fewer than 1% of alcohol services in England provide a service specifically for older people (Wadd *et*

a/, 2011). However, there is no evidence as to whether specialist services for older people are superior to those that offer mixed-age provision, although anecdotal evidence suggests that some older people may have a preference for them. Emphasis can be placed on non-drinking social activities such as day centres and clubs. It might be necessary to work on redefining a social or family support mechanism.

Families and carers

The importance of families and carers

Some older people might be financially insecure, and sustained ill health might necessitate expensive care. An alcohol problem is expensive and financially burdensome for the older individual with limited funds. Families are invaluable in supporting all recovery journeys, and they are particularly important for the older drinker.

Research indicates that the concerns of family members and friends were the most common factor motivating older people to seek treatment for alcohol problems (Finlayson *et al*, 1988) and that obtaining help from family members and friends lowers the likelihood of alcohol-related problems in older drinkers (Moos *et al*, 2004).

Family members can also play a role in reducing the possible harms of excessive alcohol consumption; for example, by making sure prescribed medicines are taken correctly and that the older drinker understands the suggested limits to consumption and the reasons for not exceeding them. Older drinkers might also not be eating properly; if they have any kind of dementia or memory problems this can be exacerbated by the alcohol. The drinker then can become confused and not realise how much they have had to drink and whether they have eaten or not. Families can support them, enhance their nutritional knowledge and understanding, and explain how problematic drinking can lead to eating insufficiently or inappropriately.

Case study 2

Caridad, an 80-year-old, widowed, retired factory worker, was referred by the Care of the Elderly Medicine service over concerns about poor mobility and a preoccupation with pain in her hands, in spite of a lack of evidence of bone injury or joint damage.

After speaking to Caridad's GP, it became evident that she had been prescribed steadily increasing doses of opiate-containing analgesics, as well as having recently started on temazepam for insomnia and small doses of diazepam for anxiety.

At assessment, Caridad described the pain in her hands as 'unbearable' and said no-one takes her seriously. The onset of this pain coincided with the death of her neighbour, her only source of social support. There were also ongoing financial worries. Caridad's only child lived nearby, but they became estranged following an 'argument over money' over a year before. There was no evidence of chronic physical health problems, but she reported her mood to be worse over the previous 6 months. As well as taking the prescribed benzodiazepines and opiate-containing analgesics, Caridad also bought analgesics containing opiates over the counter. On mental state examination, Caridad was agitated, her hair uncombed and her affect anxious. There was evidence of depression, anxiety, panic attacks and agoraphobia, but no cognitive impairment.

Caridad was started on an antidepressant and contact was made with her daughter, who was concerned enough to contact her mother again. Following this contact and support from both social services and the community mental health team (CMHT), her daughter visited daily and was able to set up a benefits check and referral to a day centre and be vigilant over the quantity and frequency of her mother's analgesic intake. Contact with the CMHT resulted in medical review of antidepressant treatment, monitoring of her mental state, emotional support from a community psychiatric nurse and recovery-focused work from a support and recovery worker.

6 months later, Caridad is able to use public transport to attend a drop-in centre, visits her daughter and daughter's family regularly. An improvement in mood resulted in the tailing off and stopping of benzodiazepines and use of over-the-counter medication. She now takes a therapeutic dose of non-opiate analgesics as required.

Supporting families and carers

Existing policy documents addressing the consequences of substance misuse for family members and carers have largely focused on the partners and children of younger people with addiction problems (Alcohol Concern, 2002). There is little research on how family members of older people are affected by the drinking of a loved one (Copello & Orford, 2002). As alcohol misuse has been the prime focus of the limited research in this area in older people, this chapter will confine itself to this substance, although there is scope for extrapolating observations to other substances.

Identifying the problem

The widespread presence, affordability and advertising of alcohol in our society, its social acceptance in many communities, and the difficulty families experience in knowing whether moderate or heavy drinking has tipped over into problem drinking mean that families typically take a long time to identify a problem in an older person and to look for help (Adfam, 2013). When family members do look for help, it is not always evident where it might be available. There is limited support available to the families of alcohol users, and a lack of services specifically for children and families affected by alcohol misuse. There is of course a higher treatment focus on the individual themselves, but services have historically tended to be very individualistic in their approach to treatment, viewing patients in a vacuum, isolated from their families, friends, networks and communities.

Both media and social views of alcohol consumption (centred often on young people's binge drinking and street drinkers) can make family members slow to realise that older people's drinking can also become problematic. Families might find it difficult to identify how much older people are drinking, or might even be fine with them drinking quite a lot if it 'keeps them happy'. The additional barrier of stigma around problematic alcohol consumption may be felt more keenly by older people because of generational attitudes and a reluctance to admit to weakness or a perceived social or even

moral failing. This can make it hard for family members to pick up on subliminal cues. Even if they do realise that something is wrong, family members are usually reluctant to think of themselves as legitimate recipients of support and can be slow to request help from services.

Effect on relationships

Problem drinking among older people can place a strain on two particular types of relationships. First, when an adult child ends up caring for a parent, the parent-child relationship can be damaged. The parent might have lost a partner and/or friends, have nobody else caring for them and require considerable support (financial, practical or emotional) from their child. Such a relationship would be hard for anyone to manage, and with problem drinking in the mix, and all the associated pressures, it can become even more challenging.

Second, strain might be placed on a grandchild who loses a treasured bond with their grandparent. An alcohol problem can impair the cognition and basic social functioning of the older person, and decrease their grandparenting capabilities, whether as an occasional carer or simply as a family member valued for their company and character. This is particularly relevant if a grandparent is the nominated carer because the parents have lost custody (e.g. because they are drug users themselves).

The stress-strain-coping-support model offers a practical approach to understanding the effects of substance misuse on family and carers (Orford *et al*, 2010), extending from the experiences of stress, to the effect on families and carers, with interventions centred around building resilience in individuals and family/social structures. Drinking in the elderly can also be stressful for siblings that are still alive and for friends as it will affect relationships.

There is considerable scope for expanding services to support families for older people with substance misuse. It is clear that these families need help. Removing barriers to accessing these services will be a starting point to aid the recovery process. Examples of such expanded services with models of good practice are yet to be developed.

Learning points

- There is little information on how family members are affected by the drinking of the older person that they support.
- Social and cultural factors mean that families typically take a long time to identify a problem and to look for help.
- Services often view patients who misuse substances as in a vacuum, isolated from their families, friends, networks and communities.
- Fewer than 1% of alcohol services in England provide a service specifically for older people.
- Barriers to identification include ageism and stigma surrounding substance misuse.
- Even if they do realise that something is going wrong, family members are usually reluctant to think of themselves as legitimate recipients of support and slow to go to services for help.
- Family are a key source of support for older drinkers, particularly in monitoring substance misuse, improving social function and reducing social isolation.
- Substance misuse can place a strain on both children and grandchildren, particularly in the nature and degree of input required, covering financial, practical and emotional support.
- There is considerable scope for expanding services to support families for older people with substance misuse.

Legal, ethical and practical considerations

Mental capacity

The Mental Capacity Act 2005 states that a person lacks capacity in relation to a matter if 'at the material time, he [or she] is unable to make a decision for himself [or herself] in relation to the matter because of an impairment of, or a disturbance in the functioning of, the mind or brain'. This definition also covers the inability to make a specific decision at the time it needs to be made and can change over time.

The complexity of problems experienced by older people with substance misuse means that there are particular risks in relation to capacity, especially when there is conflict between capacity and the role of the practitioner in encouraging the older person to tackle their substance misuse (Hazelton *et al*, 2003). An older person without capacity might not be able to recall or weigh up information associated with harm from substance misuse. Under these circumstances, assessors may erroneously attribute mental incapacity to an unwise decision. This is especially relevant given that one of the core features of dependence syndromes is the persistence of substance misuse in spite of an awareness of the harm caused by the substance(s) used.

Assessments of capacity comprise four stages, addressing the following points:

- 1 A general understanding of the decision that needs to be made
- 2 A general understanding of the likely consequences of making or not making the decision
- 3 The ability to understand, retain, use and weigh up the information relevant to this decision
- 4 The ability to communicate a decision.

Consent, the step beyond capacity, is defined as an awareness of the nature, purpose and likely effects of the decision in question. Consent covers three main areas: substituted decision-making powers, best interest principles and independent decision makers.

Substituted decision-making occurs through advance care planning (statements of wishes and preferences for future that were made before they lost capacity), advance decisions to refuse certain treatment, or granting a trusted friend or relative lasting power of attorney to cover health and welfare decisions.

Best interest decision-making takes into account key indicators of an individual's well-being. In working with older people with substance misuse problems, there can be additional factors to take into account. It might be prudent to delay significant decisions for as long as possible, or at least until acute effects, such as intoxication, have passed. It is also important to differentiate between alcohol-related cognitive deficits and addiction-related denial (Hazelton *et al*, 2003).

Independent decision makers include independent mental capacity advocates or someone who can step into the role of substitute decision maker to make major decisions regarding treatment or accommodation for a person with impaired capacity.

In Scotland, the Adults with Incapacity (Scotland) Act 2000 is considered daily in hospitals. Scotland also has the Adult Support and Protection (Scotland) Act 2007, which is for adults who can give informed consent but are vulnerable to exploitation when put under duress by others.

Mental Health Act 1983

The Mental Health Act 1983 (amended 2007) applies to England and Wales. Under the Act, dependence on alcohol and drugs is not considered to be a disorder or disability of the mind. In other words, no-one of any age can be detained under the Act on the basis of substance dependence alone. However, detention might be applicable if a person with substance dependence has a coexisting mental disorder. In the case of older people, this is usually a depressive disorder or alcohol-related brain injury.

A similar approach has been adopted by the Mental Health (Care and Treatment) Act 2003 in Scotland and the Mental Health Act (2001) in Ireland. However, it might still be appropriate to consider the Mental Capacity Act 2005 as the least restrictive framework under which to act in the patient's best interest.

Elder abuse

Elder abuse is defined as 'a single or repeated act or lack of appropriate action occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person or violates their human and civil rights' (World Health Organization, 2002). It can include physical, psychological, financial and sexual abuse and neglect. Such abuse can take place in a person's own home or in long-term care and hospital settings. Elder abuse usually refers to the ill-treatment of a person over 65 years of age.

The magnitude of elder abuse is likely to be underestimated (Cooper *et al*, 2008). It is estimated that elder abuse occurs in about 5% of older people, but rates might be higher in those who are hidden from services and in those who are not able to express their fears, overlooked or not believed. As many as one in ten older people experiences some form of elder abuse, but only one in 25 cases are reported to Social Services agencies (Dong, 2012).

In the UK, the term 'safeguarding' is used to describe multi-agency arrangements to prevent and respond to the abuse of vulnerable (generally meaning frail or disabled) adults. Use of this term marks a shift in emphasis from reaction and rescue

to prevention and harm minimisation, in the hope that outcomes for older people might be better and of their own choosing (Manthorpe, 2013).

Substance misuse is more likely to occur in the perpetrators of the abuse than in the person being abused (Anetzberger, 2005). In perpetrators with a health problem, heavy consumption of substances is not uncommon (O'Keefe *et al*, 2007); this might even extend to care settings, where theft from care staff to fund substance misuse can occur (Griffore *et al*, 2009). Women, those with a neurological or mental disorder, and those who misuse drugs or alcohol are at the highest risk of experiencing elder abuse (Friedman *et al*, 2011). Elder abuse and alcohol misuse can have similar outcomes, such as physical injury, financial problems, social withdrawal, malnourishment and depression (World Health Organization, 2005).

Culturally competent services (diversity)

In the UK, specific groups such as individuals from Black and minority ethnic (BME) backgrounds can face obstacles when accessing substance misuse services. Such problems can include language barriers (Crome & Crome, 2005). Individuals from some BME backgrounds have higher levels of alcohol misuse and resulting health problems than the general population, in particular older Irish and south Asian (Sikh) male migrants to the UK (Rao, 2006). Both alcohol misuse and ethnicity are linked with social disadvantage. In the UK, the clustering of first-generation Irish people in areas of socio-economic deprivation might explain, at least in part, the higher prevalence of alcohol use seen in this group (Rao *et al*, 2008).

Considerable stigma surrounds alcohol misuse in BME groups. This is particularly so for Asian communities in the UK, in which people from an older generation can be unwilling to recognise alcohol misuse within their communities. The second generation might share this view and perceive their actions as reflecting on the behaviour of the whole family. As a result, people with alcohol problems might try to cope on their own rather than use local services. They might also be unaware of the existence and role of substance misuse

services. A different set of influences might operate in Irish communities, where perceived negative stereotyping from health professionals might explain the low rates of primary care consultation for alcohol-related problems.

Services will be required to be culturally competent in meeting the needs of older people from diverse backgrounds. Practitioners should be vigilant in regarding the risk of substance misuse in BME groups, such as khat misuse in the Somali community and alcohol misuse in migrants from Eastern Europe. Older lesbian, gay and bisexual people might also present with substance misuse problems.

Risk assessment and risk management

The assessment of risk in older people with substance misuse begins at the initial assessment. This includes the risk of violence towards the assessor or the risk of self-harm in the person being assessed. In acute settings, people with substance misuse might be abusive and aggressive, show changes in their level of consciousness or present with 'quiet confusion', which might be part of intoxication, withdrawal or even a disorder such as Wernicke's encephalopathy.

These risks can be heightened when assessments are carried out in the community, when both the location of the assessment and the presence of others unfamiliar to the assessor are less predictable than working in acute hospital settings. Any immediate risks, such as self-harm or harm to others, should be gauged so that prompt action can be taken; this can involve the deployment of emergency services.

When the issue of safety has been addressed (including adhering to 'lone working' policies), a risk assessment will depend on the patient's history, mental state, physical examination and collateral information. Short-term risk will be influenced by factors such as frequency and intensity of substance misuse, signs of intoxication or withdrawal, mood status (including suicidal ideation), cognitive impairment and mental capacity.

Sources of social support and the risk of abuse need careful exploration, as does any physical comorbidity or acute physical presentations, such as falls or delirium. Adherence to medication and any drug interactions with substances also require further investigation.

Medium- and long-term risk will be influenced by the above factors, but they also need to be viewed in the context of other aspects of the assessment, such as early warning signs of relapse in substance misuse behaviours, other symptoms of mental disorder, a history of mental health problems (including recent in-patient admission), previous engagement with services, and historical vulnerability such as abuse and self-neglect. The risk of chronic health problems resulting from alcohol misuse will form part of the management plan and can also be used as the basis for a brief intervention and motivational interviewing.

The care programme approach

The care programme approach (CPA) forms the basis of safe and systematic planning of interventions concerning need, with a view to improving health and social functioning and reducing harm and enabling recovery. A summary of need will help in planning interventions, and should be supplemented by contingency and crisis plans. CPA meetings should involve all individuals engaged in a person's care; this can include relatives, friends, carers and professionals from statutory and voluntary agencies. The person being assessed needs to be heard and their wishes and preferences noted. A risk assessment also forms a core part of the CPA.

With the advent of the Mental Capacity Act 2005, the use of best interest meetings for older people lacking mental capacity for decisions regarding their financial, health and living arrangements is now becoming increasingly common. This is most likely to occur where there is a current or past history of alcohol misuse associated with alcohol-related brain injury.

Multi-agency partnership

There will probably be several agencies involved in the assessment, treatment and aftercare of older people with substance misuse. Professionals from mental health (old age psychiatry and substance misuse services), geriatrics, primary care and Social Services are most likely to be in this partnership, given the complexity of mental health, physical health and social care needs.

Voluntary sector organisations also contribute substantially to care, with some offering specific expertise in assessing and managing older people with substance misuse. Other individuals with a direct involvement in care can be invaluable in care planning, such as wardens in sheltered accommodation settings, district nurses, housing officers and community pharmacists.

Case study 3

Iain is a 66-year-old man referred to a CMHT by a local housing officer. He had been reported by neighbours to leave the house early in the morning and return at night, often losing his balance and falling while making his way back to his ground floor flat. Iain had not paid his rent for 6 months and his housing officer only managed a 'doorstep' visit, at which it was noted that Iain was dishevelled and unshaven, but did not look thin and was dressed appropriately. At the same visit, Iain was irritable and abusive, but not intoxicated, and denied any financial problems. Iain had last been seen by his GP the year before and the GP had noted problems in keeping appointments. There was a suspicion of alcohol misuse from self-report and blood investigations, but Iain was unwilling to seek further help. A CMHT was successful in gaining entry, and found the flat infested, bare and squalid. There were empty spirit bottles strewn around the floor, no food in the fridge and out-of-date medication in the cupboard. During the assessment, a 'friend' of Iain arrived at the door and asked him if he could borrow some money, which Iain readily gave him.

At interview, Iain showed poor self-care and was distractible. There was no evidence of depression or of abnormal beliefs/experiences, but he scored 24/30 on a screen of cognitive function (MMSE). There was also evidence of frontal impairment. A diagnosis of alcohol dependence syndrome with an accompanying mild cognitive disorder was made, but Iain was unwilling to change his drinking behaviour (at

least 20 units of alcohol per day). He lacked mental capacity to understand the risks associated with drinking but was not detainable under the Mental Health Act 1983.

The CMHT started to work with Iain and held a best interests meeting that involved social services and Iain's GP and housing officer. Iain agreed to attend a drop-in day centre and accept assistance with managing his finances and other domestic activities through home care. Using a harm reduction and recovery model that combined the expertise of the CMHT members, Iain was able to manage controlled drinking after 6 months, with no further cognitive decline.

Using and evaluating health and social outcomes

Outcome measures for substance misuse must be psychometrically sound (valid, reliable and sensitive to change), practical, cover both alcohol and drug use and be multi-dimensional, assessing different domains of alcohol and drug use and physical and emotional functioning. Only one tool covers all of these areas: the Health of the Nation Outcome Scales (HoNOS; Wing *et al*, 1998), which is commonly used across a variety of mental health settings.

HoNOS includes a single item on 'problem drinking and drug taking', in which the interviewer is asked to rate the severity of alcohol or drug misuse in the 12 days prior to admission on a 5-point scale, ranging 0–4. Although HoNOS recording is mandatory in some mental health trusts, the drug and alcohol item is not always completed (Bell *et al*, 2013).

Another instrument with potential utility is the Outcomes Star, a tool for supporting and measuring change. The original Outcomes Star was developed in the UK for the homelessness sector (Burns *et al*, 2006), but there are more recent separate versions for drug and alcohol use and for older people. The drug and alcohol Outcomes Star has ten outcome areas: drug use, alcohol use, physical health, meaningful use of time, community engagement, emotional health, accommodation, money, offending and family/relationships. The

underlying model of change covers the areas of being stuck, accepting help, believing, learning and self-reliance. For the older people's Outcomes Star, the areas covered are staying as well as you can (physical and mental health), keeping in touch (use of time and social networks), feeling positive (motivation and managing change), being treated with dignity (choice and control), looking after yourself (self-care and mobility), staying safe (safety) and managing money (economic well-being). The model of change focuses on re-enablement, as well as maximising independence and well-being. There is potentially considerable utility in combining the Outcomes Stars for drug and alcohol use with the Outcome Star for older people.

Learning points

- Mental capacity is central to decision-making and clinical judgement is required to distinguish between lack of mental capacity and an unwise decision. The difficulty of doing so is compounded by the presence of substance misuse, in which substance-seeking behaviour can continue even with the patient's knowledge that such behaviour is potentially harmful.
- In elder abuse, alcohol is the most commonly implicated substance, although the magnitude of the problem in older people with substance misuse issues and/or those in contact with another person who has substance misuse might be underestimated.
- There are no grounds for using the Mental Health Act 1983 in older people because of substance misuse alone; however, it might still be possible to use the Mental Capacity Act 2005 as the least restrictive framework under which to act in the patient's best interests.
- Sensitivity to diversity and cultural competence can reduce social isolation and improve access to services.
- A complete risk assessment is essential when assessing an older person with substance misuse. This should cover the safety of the assessor, as well as any risks associated with physical and mental health, social function, social engagement and abuse.
- There are few tools that are psychometrically sound, practical, cover both alcohol and drug use and are multidimensional. As such, there is a need for further development in this area.

The emergency physical presentation

Older people can present to the accident and emergency department with signs and symptoms related to substance misuse. As these signs and symptoms can be non-specific, underreported and underrecognised, substance misuse might go undetected in many patients in an acute setting. Since signs and symptoms for substance misuse might not be immediately apparent, physicians, nurses and ancillary staff in emergency or medical departments should have expertise in taking a thorough history and assessment of all elderly patients. Age-related physical changes make older people more prone to the complications of substance misuse. Polypharmacy, medication errors and poor physical and mental condition can all increase the adverse consequences of substance misuse in an older population. Common acute presentations like confusion, falls and delirium can be drug related and this needs to be considered in the differential diagnosis.

Acute intoxication

Although acute intoxication is not a frequent presentation in older people, it might be followed by or associated with acute withdrawal symptoms in the dependent patient. However, alcohol dependence often goes unrecognised in the acute setting, and it is important that it is picked up early, so that these patients can be treated in an appropriate hospital setting. When assessing the severity of alcohol dependence and determining the need for assisted withdrawal, there will need to be an adjustment in criteria for older people (NICE, 2011b). There is more likelihood of this being achieved if all clinical assessments also include a risk assessment to self, patient and others.

Wernicke's encephalopathy

Acute intoxication can mask the development of potentially life-threatening Wernicke's encephalopathy, which can present during alcohol withdrawal or be misdiagnosed as alcohol withdrawal. Wernicke's encephalopathy is a medical emergency and is a clinical diagnosis (Sechi & Serra, 2007). It is important to maintain a high level of suspicion for the possibility of Wernicke's encephalopathy, particularly if the person is intoxicated. Wernicke's encephalopathy causes brain damage in the thalamus and hypothalamus. It is thought to be caused by a lack of the vitamin thiamine due to poor diet and/or absorption at a time of increased requirement for the vitamin (for cerebral functions in particular), although little is known about the mechanisms involved (NICE, 2011b). Untreated Wernicke's encephalopathy can lead to Korsakoff's syndrome, in which there is lasting damage to areas of the brain involved with memory (So & Simon, 2012). Wernicke's encephalopathy and Korsakoff's syndrome are generally considered to be different stages of the same disorder, Wernicke–Korsakoff syndrome. Wernicke's encephalopathy is the acute phase of the disorder and Korsakoff's syndrome is the chronic phase.

Patients with Wernicke's encephalopathy can present with confusion and loss of mental activity that can progress to coma and death. Patients might have ataxia that can cause leg tremors. Visual changes such as nystagmus and double vision should also be examined in these patients. Symptoms of Korsakoff's syndrome include loss of memory, an inability to form new memories, making up stories (confabulation) and hallucinations. The following signs might be elicited during examination of the nervous/muscular system: abnormal eye

movements; decreased or abnormal reflexes; tachycardia; hypotension; hypothermia; muscle weakness and atrophy; and problems with gait and coordination.

Most of the above signs and symptoms can be reversed if treated promptly with parenteral thiamine. Patients with suspected Wernicke's encephalopathy should be offered parenteral (intramuscular or intravenous) thiamine for a minimum of 5 days (unless Wernicke's encephalopathy is excluded in that period). Oral thiamine therapy should follow parenteral therapy. However, improvement in memory function is slow and usually incomplete. Without treatment, Wernicke–Korsakoff syndrome can be life-threatening (Latt & Dore, 2014). Parenteral replacement elevates blood levels more quickly than oral replacement. However, despite the fact that parenteral dosing uses additional clinical resources, is unpleasant for the patient and has a very small risk of anaphylaxis, it is likely to be more effective. Vitamin B1 does not usually improve the loss of memory and intellect that occur with Korsakoff's syndrome.

Acute hazards from intravenous injections

Elderly patients occasionally present with damage to veins relating to substance misuse. Hepatitis C is extremely prevalent in intravenous drug users. Rates vary between 30 and 80% and seem to be increasing. Intravenous drug users have a higher mortality than the general population (Health Protection Agency *et al*, 2009).

The acute hazards from intravenous injections are damage to veins, infection and overdose (NICE, 2009). Damage to veins is mainly due to the repetitive nature of intravenous drug use, poor technique, infection and irritation by noxious chemicals. Injecting into the femoral vein is very common and can cause deep vein thrombosis, septicaemia, arterial bleeding, neuropathic pain and ischaemia. Injecting into a neck vein is less common and more dangerous because of the presence of major vessels, nerves, trachea and oesophagus. Mastitis is likely if breast veins are used. Penile veins are sometimes used if no other veins are available; this is an extremely dangerous practice with the risk of

priapism. Intravenous drug users risk the eventual loss of venous access for emergency situations.

Most of the harmful effects of cocaine are related to injecting into veins. Cocaine's local anaesthetic and vasoconstrictor properties, as well as the high frequency of injections, means that venous damage is common. This leads to early use of more dangerous injecting sites, such as the groin, with the subsequent increased risk of deep vein thrombosis and leg ulceration. Cocaine users also face the usual risks of parenteral drug misuse, such as bacterial and blood-borne viral infections.

In bacterial endocarditis, which can arise as a result of injecting drugs, immune-complex deposits can lead to nail-fold infarcts, splinter haemorrhages and Osler's nodes in the pulps of the digits. Janeway lesions (tender nodules in the palms or soles), on the other hand, are due to septic emboli. NICE guidance advocates early treatment and treatment for all hepatitis C patients who want it (including intravenous drug users). However, there is some evidence that only 1–2% of those infected with hepatitis C in the UK are receiving treatment (NICE, 2006).

Acute withdrawal syndromes

Acute psychosis is an acute effect of substances such as cannabinoids, stimulants and hallucinogens, and transient psychotic symptoms are also associated with the withdrawal states accompanying alcohol, sedatives and hypnotics.

Stimulants

Psychological dependence on cocaine can develop easily. There are no typical physical withdrawal syndromes as seen with opiates, but lethargy, cravings, psychomotor agitation or retardation, insomnia or hypersomnia, unpleasant dreams, increased appetite, vomiting, tremors, sweating, feelings of depression and even suicidal ideation might occur.

Cannabis

Cannabis use can lead to a dependence syndrome, with anxiety, restlessness, irritability, tiredness and insomnia occurring when the person ceases use.

Opiates

Agitation, anxiety, muscle aches, lacrimation, runny nose, sweating and yawning are some of the early symptoms of opiate withdrawal. Abdominal cramps, diarrhoea, dilated pupils, goose bumps, nausea and vomiting are some of the late symptoms. Symptoms usually start within 12 h of last heroin use and within 30 h of last methadone exposure. Most opiate overdose deaths occur in people who have recently withdrawn or detoxified and are also taking other substances, such as alcohol, depressants and stimulants.

Nicotine

The symptoms of nicotine withdrawal include anxiety, cravings, depression, difficulty concentrating, impaired performance, increased appetite and weight gain, irritability, frustration and anger, and restlessness and impatience.

Delirium in withdrawal syndromes

The psychological symptoms older people who misuse substances commonly present with are delirium, mood disorders, cognitive impairment and psychotic symptoms. Delirium might be associated with intoxication or withdrawal states. Recognising delirium tremens in acute hospital settings is especially important, as it has high morbidity and mortality if untreated.

Delirium tremens is a severe form of alcohol withdrawal that can manifest as a severe mental or nervous system disorder. It is a medical emergency. It is characterised by hallucinations, disorientation, tachycardia, hypertension, fever, agitation, convulsions and diaphoresis (sweating) and typically sets in following acute reduction or cessation of alcohol. It typically begins 48–96 h after the last drink and, in the absence of complications, can last for up to 7 days (Mayo-Smith *et al*, 2004). This is usually a clinical diagnosis. Acute alcohol withdrawal can be managed by fixed-dose medication regimens or by giving an initial 'loading' dose (front-loading) in conjunction with a symptom-triggered or as-required regimen. Elderly patients and those with concurrent medical conditions,

both acute and chronic, are at higher risk of complications. Concurrent medical conditions are common and include dehydration, unrecognised head trauma, electrolyte abnormalities, infections (including meningitis), gastrointestinal haemorrhage, pancreatitis, liver disease and myocardial infarction. These conditions might not be obvious or self-reported in delirious patients.

Close monitoring by nursing personnel is critical to protect the patient and maintain accurate records to guide ongoing medical management. In many cases, continuous, one-to-one observation and monitoring might be required for agitated and disorientated patients. Rehydration and nursing in a quiet room is essential.

Overdose of opiates and benzodiazepines

Opiate drugs such as heroin, morphine, codeine, oxycodone and methadone can all cause physical dependence. Higher doses of more powerful opiates can lead to respiratory depression and death. People who require the pain relief afforded by opiate medications do not usually become addicted but, unfortunately, tolerance can develop over time, requiring higher doses to maintain analgesia. Opiates by themselves have minimal pathological effects. The major problems with opiate misuse are psychosocial consequences, respiratory problems and infections. Psychosocial problems are related to the behavioural issues that emerge from drug dependence. Drug-seeking behaviours result in a life centred on drug-taking and recovering from the effects of drugs. The route of administration is typically intravenous, without attention to sterile technique, thereby increasing the risk for infection.

Oxycodone is a controlled-release form of opioid analgesic prescribed to treat constant, moderate to severe pain of prolonged duration. Patients misusing this medication risk addiction and death, particularly if oxycodone is used in association with other drugs. Misusers might progress to usage by intravenous injection and usage of other opiates or drugs of misuse.

Withdrawal from chronic opiate usage typically results in marked physiological and psychological

disturbances such as agitation, anxiety, nausea, vomiting, diarrhoea and abdominal cramps. Opiate withdrawal can be an unpleasant experience, but is not life-threatening or particularly dangerous in comparison with untreated withdrawal from benzodiazepines. Benzodiazepine withdrawal manifests as headache, insomnia, increased anxiety, low mood, tremor and myoclonic jerks. In those who are withdrawing from prolonged treatment, significantly more dramatic symptoms might be experienced, with nausea, vomiting, delirium, hallucinations, depersonalisation and generalised seizures. About 15% of patients are dependent after 4 months and 50% after 2 years. Benzodiazepine withdrawal syndrome can present with intense anxiety and seizures and can even result in death.

Systemic effects of substances

Gastrointestinal disease

Structural and functional alcohol-related damage of the gastrointestinal system can be both acute and chronic. Older people are more sensitive to the effects of alcohol because of reduced liver metabolism. Also, because of a lower body water/fat ratio, circulating levels of alcohol in the elderly are higher.

Acute gastric mucosal damage can happen even at lower levels of alcohol intake. Alcohol can inhibit gastric and intestinal motility and cause upper gastrointestinal bleeding due to gastric erosions or peptic ulceration. Mallory–Weiss syndrome (haematemesis from a tear in the mucosa of the oesophagus) can occur as a result of alcohol-related vomiting.

The absorption of various nutrients from small intestine is affected by alcohol misuse. Alcohol misuse can be identified from symptoms such as a loss of appetite and various abdominal complaints, including nausea, vomiting, bloating and abdominal pain. Diseases of the liver and pancreas can lead to aggravation of these symptoms. Pain in the right upper quadrant, jaundice and fever might be present and can wrongly lead to a diagnosis of biliary tract disease.

The initial stage of liver damage is usually fatty liver and this can progress to alcoholic hepatitis and then to cirrhosis. Abdominal discomfort related to liver damage can lead to reduced food intake, causing the weight loss and malnutrition commonly observed in alcoholics. Alcoholic hepatitis has been established as an important precursor to the formation of cirrhosis.

Often patients have coexisting alcoholic hepatitis and cirrhosis, with clinical features such as spider telangiectasia, parotid enlargement and gynecomastia. This can lead to portal hypertension and the complication of bleeding oesophageal varices with large, life-threatening gastrointestinal haemorrhage. The stigmata of chronic liver disease, such as palmar erythema, spider naevi and caput medusa or jaundice, can be an indication of alcohol misuse or exposure to the hepatitis C virus from shared needles. Alcohol misuse is also associated with an increased risk of cancer of the gastrointestinal system by reducing the levels of available vitamin A and the common concurrent use of tobacco.

People with a history and symptoms suggestive of chronic alcohol-related pancreatitis should be assessed using computed tomography, as this is the first-line imaging modality for the diagnosis of chronic alcohol-related pancreatitis. Patients with pain from chronic alcohol-related pancreatitis should be referred to a specialist centre for multidisciplinary assessment.

Patients with decompensated liver disease should be considered for assessment for liver transplantation if they still have decompensated liver disease after best management and 3 months' abstinence from alcohol and are otherwise suitable candidates for liver transplantation. The nutritional requirements of people with acute alcohol-related hepatitis should be assessed and nasogastric tube feeding considered.

Respiratory disorders

Drug misuse can lead to a variety of respiratory problems. Tobacco smoke consists of tar, nicotine, carbon monoxide and other gases. The amount of nicotine and other substances that are absorbed through the lungs depends on how much of the smoke is inhaled. Long-term smoking has been

shown to cause bronchitis, emphysema, pneumonia, chronic obstructive pulmonary disease and lung cancer. Lung cancer is the most common cause of excess smoking-related mortality in people over 60 years of age. Continued smoking in later life is associated with the development and progression of several major chronic conditions, loss of mobility, and poorer physical function (LaCroix & Omenn, 1992).

The use of some drugs can also cause breathing to slow, block air from entering the lungs and exacerbate asthma symptoms. Cocaine can be inhaled via the nasal route or dissolved and then injected. Crack is a smokeable form of cocaine made into small lumps. It can also be injected. Although inhalation is a safer route than intravenous administration, sharing pipes can lead to blood-borne transmission, and inhaled crack cocaine can cause breathing difficulties and worsen asthma. 'Crack lung' is a rare but serious eosinophilic inflammatory condition, and occurs 1–48 h after smoking cocaine. Patients present with acute dyspnoea, cough and haemoptysis and are treated with systemic corticosteroids. Cocaine causes damage to the nasal mucosa due to the vasoconstrictive and anaesthetic effects. This can lead to chronic rhinitis, anosmia, nosebleeds and even septal perforation. Some patients perform the Valsalva manoeuvre to enhance the effects of cocaine, leading to increased risk of pneumothorax and pneumomediastinum.

Hypoglycaemia

Patients with no previous history of hypoglycaemia require a complete work-up to find a potentially treatable disease. Substance misuse (e.g. cocaine and alcohol) is one cause of hypoglycaemia.

Cardiac disease

Drug misuse can increase the likelihood of cardiovascular events and deaths. Hypertension, cardiomyopathy and stroke are associated with substance misuse. Cardiac arrhythmias like atrial fibrillation can occur as a result of heavy alcohol consumption. Intravenous cocaine and heroin use increases the risk of endocarditis. Approximately one in four non-fatal myocardial infarctions in persons under 45 years of age is attributable to frequent cocaine use (Adnan *et al*, 2001).

Common clinical presentations

Stroke

The use of certain illegal or controlled substances has been shown to increase the risk of stroke, particularly hemorrhagic stroke. Some drugs cause stroke by directly affecting blood vessels in the brain, whereas others do it indirectly by affecting other organs in the body, such as the heart or the liver.

The mechanisms by which tobacco contributes to stroke are poorly understood and the role of nicotine in this process is controversial. Heavy and regular use of alcohol can increase blood pressure, affect the liver and impair clotting mechanisms and therefore increase the risk of stroke. Alcohol dependence (especially chronic and excessive use) can also increase the risk of subarachnoid hemorrhage. Cannabis use has been implicated in several cases of cerebrovascular accident or stroke, and it might also exacerbate cardiovascular ill health that can lead to stroke, in susceptible individuals.

Cocaine causes a narrowing of blood vessels and severe elevation of blood pressure that can rupture a blood vessel inside the brain leading on to stroke. If used in its intravenous form, known as crack, cocaine increases the risk of endocarditis (infection in the heart valves), a condition that can lead to embolic stroke. Heroin can also cause endocarditis.

Amphetamines can cause high blood pressure. Smoked amphetamines such as crystal meth and ice, as well as any illicit drug injected into the bloodstream, can also cause stroke-like symptoms. Phencyclidine, also known as PCP or angel dust, and lysergic acid diethylamide (LSD) have also been linked to stroke.

Falls

The aetiology of falls is multifactorial and relates to patient characteristics and external factors. Physiological changes associated with age, sensory deficits, postural imbalance, chronic health problems, substance misuse and environmental hazards have all been identified as risk factors for falls. Loss of balance, coordination, judgement,

risk-taking, autonomic neuropathy, peripheral neuropathy, cardiac disease, osteoporosis and myopathy can all conspire to make a fall more likely. There is an increased prevalence of falls among elderly individuals with a substance misuse problem and this should always be considered in differential diagnosis.

Learning points

- Elderly patients with non-specific complaints should be questioned, examined and screened systematically for substance-related problems (e.g. urine screens, screening instruments, biological investigations).
- Maintain a high level of suspicion for the possibility of Wernicke's encephalopathy, particularly if the person is intoxicated at presentation.
- Early recognition of substance misuse leads to better outcomes in emergency physical presentations.

The emergency psychiatric presentation

Self-harm, depression and alcohol

Alcohol misuse is inextricably bound with self-harm at any age. In the context of self-harm and suicide, alcohol reduces anxiety levels, reduces inhibitions and increases impulsivity, thus facilitating self-harm and suicide in vulnerable elderly people.

There were 5981 suicides in the UK in 2012. The 80–84 year age group had the highest suicide rate, with over 20 per 100 000 taking their own lives (Office for National Statistics, 2014). The ‘baby boomers’ born between 1946 and 1964 have higher suicide rates at any given age than earlier or later cohorts. The upper end of this cohort is already over 65 and there is expected to be a rapid growth in the over-65 population over the next few decades (Conwell *et al*, 2011).

Although the association between per capita alcohol consumption and suicide in older people in the UK is not as strong as in countries such as Sweden, Belgium and Portugal (Ramstedt, 2001), it is a risk factor. Other risk factors for suicide, often clustered together in risk profiles, include male gender, family history of psychiatric disorder, previous attempted suicide, more severe depression, hopelessness, as well as comorbid anxiety and alcohol misuse (Hawton *et al*, 2013).

There is good reason to be concerned about older people with comorbid depression and alcohol misuse. A study of 36 primary care clinics across the USA found that heavy drinking (more than 21 units of alcohol per week) was positively associated with symptoms of depression and anxiety, as well as with perceived poor physical health (Kirchner *et al*, 2007). There is also evidence to suggest that the

risk of suicide associated with alcohol dependence increases with age (Conner *et al*, 2003) and that both mood disorder and physical illness are associated with completed suicide in older men with alcohol dependence (Conner & Conwell, 1999).

Presentation of depression in older people

Reducing suicide risk in older people with depression and alcohol misuse requires a thorough assessment of mood and a comprehensive alcohol history. The assessment of mood in older people is often not straightforward, particularly as low mood might be downplayed, misattributed to cognitive impairment (‘pseudodementia’) or masked by either physical illness or alcohol intoxication. Older people are more likely to somatise their depression through complaints such as worsening pain or abdominal discomfort.

Older people do not commonly present with the classic depressive symptoms seen in their younger counterparts, such as feeling low and being tearful. Rather, they present with feelings of being down in the dumps, fed up or lonely. Similarly, given the restricted lifestyle of some older people, it is difficult to gauge loss of interest. Other symptoms, such as loss of energy, loss of appetite and sleep disturbance, can be shared with physical health problems and with alcohol misuse. However, the diagnosis is made clearer by the presence of pessimism, hopelessness, thoughts of life not being worth living and suicidal ideation.

If feelings of hopelessness have been established, it is essential to explore suicidal ideation, particularly the severity and frequency of suicidal thoughts, as well as factors driving this ideation and those

holding back the person from attempting suicide. This is particularly important when assessing older people who have presented with self-harm. In such cases, the presence of depression, with or without alcohol misuse, may (under certain circumstances) require the use of legal detention under the Mental Health Act 1983.

It is essential to record the quantity and frequency of drinking over the course of a week. This can take the form of a drink diary. As well as using screening tools such as the AUDIT, daily and weekly unit totals can be used to assess whether increasing and at-risk drinking patterns are present. This can provide a focal point for brief intervention and motivational interviewing.

Older people presenting with depression, alcohol misuse or both can be directed to community services such as drug and alcohol teams, older people's mental health services and voluntary sector services. These services can further improve health and social outcomes by strengthening links with primary care and with geriatric and other secondary care medical services. Reducing alcohol consumption can have a positive impact on mood; conversely, treating depression can be associated with a reduction in increasing and high-risk drinking.

Psychosis and alcohol or illicit drug misuse

Although the lifetime prevalence of psychotic disorders is only a third of that of depressive disorder (Volkert *et al*, 2013), it is important to take into consideration the fact that many older people with psychotic disorders are people with schizophrenia who have grown older. For these people, schizophrenia and alcohol misuse are both known to be independent risk factors for cognitive impairment. The combined effect may be greater than either risk factor alone.

Psychotic disorders associated with alcohol misuse are uncommon; fewer than 3% of people with alcohol dependence have a psychotic disorder (Jordaan & Emsley, 2014). However, psychotic symptoms can be present in delirium tremens associated with alcohol withdrawal, in severe

depressive disorder and in alcohol-related brain injury with associated cognitive impairment.

In some of these presentations, for instance psychotic symptoms associated with severe depressive disorder and alcohol-related brain injury, the use of low-dose atypical antipsychotic drugs can be beneficial. They can also be beneficial in older people with misuse of cannabinoids, stimulants and hallucinogens who have psychotic symptoms. In the treatment of psychotic symptoms, atypical antipsychotics are preferable and at a starting dose that is between a quarter and a half of the adult dose. However, caution should be observed in older people with delirium tremens, for whom benzodiazepines should be used as first-line treatment and the antipsychotic drugs used only under specialist guidance.

The 'problem' resident in the community: substance misuse and personality disorder

The classification of personality disorder is divided into three main clusters: A, B and C.

- 1 Cluster A disorders are termed 'eccentric' and include people with increased sensitivity to criticism and self-referential ideas. This cluster also includes people who find it difficult to read emotional and behavioural cues and therefore remain socially isolated as a consequence of poor social skills.
- 2 Cluster B disorders are termed 'erratic' and include people with traits that are antisocial, emotionally unstable, dramatic or excessively preoccupied with self-importance.
- 3 Cluster C disorders are termed 'anxious' and people in this group are mostly either avoidant or excessively dependent. Approximately one in ten older people has a diagnosis of personality disorder (Abrams & Horowitz, 1996). The majority of them have mood disorders such as depression and the accompanying personality disorders are mostly in cluster C.

There are few empirical data on personality disorders accompanying substance misuse in older

people, but maladaptive personality traits in the context of mood disorder and accompanying substance (especially alcohol) misuse are common clinical features in urgent referrals to specialist services. In such instances, it is important to have a structured approach that includes clear contingency and crisis plans that also incorporate other psychological approaches mentioned previously.

Treatment

Apart from generic approaches such as motivational interviewing and motivational enhancement therapy, the main approaches to older people with personality disorders and substance misuse are cognitive-behavioural therapy (CBT) and dialectical behavioural therapy (DBT). CBT is more commonly used to address associated mood disorders, with DBT proving more beneficial in the treatment of accompanying substance misuse associated with personality disorders.

As a treatment for substance misuse, DBT has gained momentum over the past 10 years (Dimeff & Linehan, 2008). The term 'dialectical' refers to the drawing together of two opposing ideas. The fundamental principle is working towards common goals of change and acceptance. Therapy can help to facilitate change, using persuasion to break down barriers, such as mixed feelings about the benefit of therapy, which can strengthen resistance to change.

Older people with substance misuse problems and personality disorders are at high risk of marginalisation from services, particularly if they are labelled as 'difficult' or 'troublesome'. A non-judgemental approach is therefore essential and a focus on the recovery model can be of immense benefit in helping older people to lead more fulfilled and happier lives. The main areas of such a model are improving interpersonal relationships, ensuring an

adequate standard of living and maintaining mental and physical health.

Case study 4

Magdala, a 75-year-old woman, was referred by the warden from her sheltered accommodation following an argument with a fellow resident over leaving the lights on in the common area. This had culminated in verbal abuse and was reported to have been one of many such altercations she had had with other residents. Magdala had moved there only 2 years before to be nearer her daughter, but the quality of their relationship was poor and her daughter had cut off all contact with her for at least the past year. Magdala was described by her daughter as 'short-tempered' and 'forever falling out with people'.

Magdala had separated from her husband after only 3 years of marriage and had difficulty holding down a job. She had been treated for anxiety in her thirties, but there was no evidence from her GP of sustained low or anxious mood. However, she had consistently refused to stop her nitrazepam, which she had been taking for over 20 years. The warden and Magdala's daughter reported that, over the past year, she had started to drink alcohol in her room and with a friend from the same accommodation. This amounted to at least 5 units per day. Although an ex-smoker, she now had chronic breathing problems and also high blood pressure, as well as poor mobility. She had stopped all medication for her physical problems 6 months previously.

After an initial visit, when Magdala was noted to be intoxicated and became abusive, there was gradual engagement in treatment, and she was eventually able to form a therapeutic relationship with her care coordinator. She undertook 10 sessions of CBT, then began DBT, exploring of barriers to change and emotional regulation. During this time, she was also provided with a benefits check, started attending a day centre and attended her GP for monitoring of her blood pressure. Over the course of 12 months, she became abstinent and better engaged socially, although she continued to take nitrazepam. Her daughter had also started visiting her more frequently.

Management in the community

Managing withdrawal syndrome in the community

Although the most common substances that older people misuse are alcohol and prescription medications, opiates are increasingly misused in this population. In order to optimise management, the differences and similarities in withdrawal presentation in older people, as compared with younger people, have to be taken into account. It might therefore be necessary for an addiction psychiatrist and a geriatrician (and their teams) to assess the patient and subsequently initiate treatment for withdrawal.

Assessment of withdrawal in older people

In younger people, pharmacological treatment is almost always used if the patient demonstrates features of a particular substance's withdrawal syndrome. For alcohol and benzodiazepines, the signs and symptoms include sweating, shaking, tremor, anxiety, hypertension, hyperthermia, confusion, vomiting and nausea, whereas for opiates symptoms are a runny nose and eyes, dilated pupils, goose bumps, shivering, chills and sweats, diarrhoea, stomach cramp and muscle aches.

However, older people might not develop these symptoms for a variety of reasons. For example, cognitive dysfunction can prevent the patient from appreciating that they are taking larger quantities of a substance over longer periods than intended. If there is little social pressure to decrease harmful use, an older person might not attempt to cut down or control their substance use. Since the

negative effects of substance use can occur at relatively low levels of use and because some of the substances are prescription medications, older people might not need to spend a great deal of time in obtaining substances, or indeed recovering from the effects. Older people might not recognise the feelings of cravings or urges to use as associated with withdrawal, attributing them to something else. It might be expected that older people will reduce social and other obligations, so that any change will be associated with this and not substance misuse. Older people might not understand that the problems they experience are associated with substance misuse and therefore continue to use. Finally, older people, their carers and health professionals might not realise that a level of consumption that was once safe has become hazardous.

It can be helpful to assess the person using a standardised questionnaire to assess level of consumption, associated problems and the presence and severity of dependence. Presenting symptoms should be carefully assessed as to whether they are part of a state of withdrawal or intoxication rather than a medical or psychiatric condition. A physical and mental state examination as well as investigations is mandatory.

Alcohol

If the individual has not been drinking regularly, and it is not possible to elicit withdrawal symptoms, it is unlikely that pharmacotherapy for withdrawal is necessary. However, this decision should be made after a comprehensive assessment, already described in earlier sections of the guide, and careful questioning in the context of the discussion above.

Whereas many alcohol-dependent patients can be detoxified at home, this can only be undertaken in a physical environment that is safe and conducive to a calm ambience, with the support of carers/family in the home who are able to monitor the patient and who are well and active themselves. Community services need to be available to supervise medication and provide support by explaining what to expect, giving practical advice and reducing stress. The individual should be seen regularly and encouraged to drink fluids and eat normally, if possible. However, if older people do demonstrate withdrawal symptoms, the threshold for admission to hospital might have to be lower than for younger adults, owing to the potential for medical complications such as neurological and hepatic disorder. Furthermore, the patient's ability to make decisions about detoxification might be impaired because of cognitive dysfunction, either directly, as a result of substance misuse, or indirectly, as part of a co-occurring disorder.

Although long-acting benzodiazepines are the treatment of choice in adults, older people should start on a lower dose. It is important to strike a balance between a dose sufficient to alleviate the symptoms and a dose that could result in intoxication. It might be preferable to consider shorter-acting medications such as lorazepam or oxazepam, especially if there is hepatic dysfunction. It is important to ensure that the dose takes account not only of the patient's age (older people should have roughly half the standard adult dose), but also of accompanying physical conditions (for example, if the patient has liver disease, accumulation might be more likely) and their mental state (the patient might have a co-occurring depression, anxiety or psychosis). Particular attention needs to be paid to the likelihood of suicide, history of self-harm or a history of withdrawal symptoms (including the development of seizures). Memory can be affected even within the normal dose range of prescribed benzodiazepines. Dependence syndrome can result from low doses of benzodiazepines, so that withdrawal might present with acute confusion, which might further complicate the clinical picture.

The starting dose is often related to the score on the Severity of Alcohol Dependence Questionnaire (Stockwell *et al*, 1979), although this scale has

been developed in younger people and so results should be interpreted cautiously. Medication is administered in 3 or 4 doses divided over 24 h and, following stabilisation over 3 or 4 days, reduction usually takes place over 7–10 days. Other prescribed and over-the-counter medication, illicit drugs and health conditions must be considered when formulating the dosage regimen.

Convulsions and the possibility of Wernicke–Korsakoff syndrome should be considered, but patients should routinely be treated with vitamin B and C; intramuscular or even intravenous administration can prevent malabsorption. However, emergency treatment for anaphylaxis should be available in all settings where acute correction of vitamin deficiency is required as, although this is very rare, it can be fatal.

Although anti-craving agents (e.g. acamprosate, naltrexone) and aversive medications (e.g. disulfiram) should be considered, the evidence base in older people is sparse, and a clinical decision needs to be based on the condition of the patient and the adverse effects profile.

Case study 5

Sarah, a 70-year-old woman, presented to a memory clinic with deteriorating memory. She was managing reasonably well at home with some input from her family. She had had no significant medical history. She drank 1 large glass of wine (~3 UK units of alcohol) each day. A computed tomography scan showed some vascular disease. She claimed she did not need to cut down on her drinking and would not agree to further assessment. However, her condition deteriorated so that, when seen 6 months later, she admitted drinking 2 bottles of wine a day. It was not safe for her to continue drinking or to be detoxified at home. Sarah had some difficulty accepting that she would have to go into hospital for treatment.

Opiates

A person misusing or dependent on opiates requires a thorough assessment. They might be using illicit heroin, prescribed or over-the-counter opiates, or drugs bought over the internet. Patients should be assessed for the total amount of opiate taken and objective signs of withdrawal. Urinary drug screens should be carried out to verify the presence of opiates. Some individuals are able to abstain without experiencing withdrawal features.

Differentiating between potential intoxication or withdrawal symptoms and symptoms of a physical or psychological disorder is a key part of the assessment. Patients need to be supported by a carer who can monitor their condition and access medical help if required.

If medication is required, methadone is the most widely used substitute and is long-acting. The initial dose will be related to the health of the patient, the quantity of total opiate, and the presence and severity of dependence. It should relieve withdrawal symptoms but can accumulate, so awareness of toxicity in the older patient is vital, as it can take several days for the blood level to stabilise. The patient should be monitored every few hours – at least initially – whether in hospital or in the community. The dose can then be reduced over weeks (or months, in some cases). This reduction can be done more easily when started at a higher dose, and kept at a certain level for a few days or a week at a time, depending on the clinical state of the patient.

Patients can become very anxious during this process, so all possible actions to alleviate their anxiety should be undertaken. The decision to start or stop substitute medication can be complex and the input of specialist physicians (e.g. geriatricians) and an addiction psychiatrist is advised. There is no evidence regarding the best dosing regimen in older people, but reduced dose, a longer interval between doses, and monitoring of creatinine clearance is advisable.

Methadone can affect cardiac function, so the partial opioid agonist buprenorphine can be considered. There is little specific evidence in older people, but it might be useful for patients with renal dysfunction. The opioid antagonist naltrexone can precipitate withdrawal and delirium, so it is better implemented in a hospital setting. Patients can be given symptomatic treatment for mild withdrawal symptoms: benzodiazepines for agitation or insomnia, loperamide for diarrhoea, and metoclopramide for vomiting and non-steroidal anti-inflammatory drugs for muscle pains.

For all patients, extreme caution is advised, as it is likely that, for complex patients, the initial approach might have to be in-patient admission, after which progress is regularly reviewed, urine

tests monitored, and collaboration with diverse teams facilitated.

Case study 6

Thomas, a 63-year-old man, presented to the specialist addiction service. He had been taking heroin for several months to help pain in his back. He was given the initial doses by his children. He was very keen to come off the heroin and was very embarrassed that he was using at all. He did not have a history of drug misuse, but he had been a heavy drinker in the past. Once retired, he found his alcohol intake gradually increased, although to nowhere near the level that he used to drink. He wanted to commence a dose-reduction regimen at home.

Benzodiazepines

There are concerns about older people developing a dependence on benzodiazepines as a result of inappropriate prescribing. This can occur in patients who have no history of substance misuse. For many, benzodiazepine use is combined with the use or misuse of other medications and with medical and psychiatric morbidities that might complicate the management. These include memory dysfunction such as forgetfulness, confusion, and dementia.

Prolonged use of a therapeutic dose can result in a need to decrease usage. Symptoms of withdrawal include agitation, anxiety, confusion, delirium and seizures. Management of withdrawal is undertaken by assessing the total daily dose, whether of prescription or over-the-counter drugs, by means of a diary. Family and carers can enhance safety and monitor improvement or any difficulties that might ensue. The dose can then be gradually reduced on an out-patient basis over several weeks or months. A longer and more careful reduction is more likely to prevent the onset of neurocognitive problems.

Any pharmacological intervention (be it initiation or reduction) should be implemented in the context of psychosocial interventions. Sometimes diazepam should replace shorter-acting benzodiazepines, as this might result in a smoother reduction, but the clinical condition of the individual is critical to the decision. The threshold for undertaking this tapering as an in-patient is lower than for a younger adult, especially if the older person has benzodiazepine dependence as a result of high-dose usage, as this could lead to confusion and convulsions.

Insomnia, depression, anxiety, pain, isolation and cognitive deficits are frequently associated with benzodiazepine misuse, so that non-benzodiazepine medication and psychosocial interventions are appropriate.

Case study 7

Elizabeth, an 80-year-old woman, was feeling desperate. For many years she has been prescribed lorazepam 4mg daily. Over recent weeks she had been feeling under the weather because her elderly sister, for whom she cared, had become seriously ill. She was not eating or sleeping well and did not know how many lorazepam tablets she had taken. She usually had enough, although she did not monitor when she took the tablets. However, she was about to 'run out' and contacted her GP, who had not yet issued a new script. Elizabeth thought she had enough until the next day, but this depended on when the repeat prescription would be issued. She feared that she would develop withdrawal syndrome and that the GP would not prescribe for her any longer, nor would the prescription be increased.

Summary

In summary, older people might not demonstrate the typical symptoms of withdrawal syndrome, which is usually the basis on which pharmacological treatment is initiated. Assessment should be undertaken by a multidisciplinary team, so that the safety of community management can be evaluated.

Although pharmacological interventions can manage withdrawal syndrome, and perhaps be continued as substitution therapy to maintain abstinence or prevent relapse, the psychosocial context and potential treatments must be part of the package even at this early stage. Continuity of care by monitoring and re-assessment is a crucial component of success.

Because of the physiological changes in older people, pharmacological treatment should start at a low dose and be titrated slowly. Admission to hospital should be organised if there is social instability, comorbidities, polysubstance use or misuse, or if the clinicians are intuitively concerned about the complexity or chronicity of the individual's condition. Extreme caution is advised with the use of all medications, perhaps especially naltrexone and disulfiram. Other significant comorbidities (e.g. depression, pain, polypharmacy) need to be

managed simultaneously, as they might trigger relapse and undermine good quality care for the withdrawal.

Learning points

- Extreme caution is required when initiating the detoxification regimen, as older people might not demonstrate the withdrawal symptoms that are usual in younger adults.
- If a decision is made to commence detoxification, this should be implemented with a clear management plan and rigorously monitored by all members of a multidisciplinary team.
- Since older people are likely to have comorbid mental and physical health problems and might be socially isolated, the threshold for admission to hospital is lower than for younger adults.
- Detoxification is only one part of a comprehensive treatment package that must include psychosocial management.

Managing heroin and benzodiazepine misuse in the community

Heroin

The baby boom cohort (those born between 1946 and 1960) is ageing, not necessarily gracefully, nor necessarily drug-free. It was once believed that illicit drug users 'matured' out of their drug use, but there is evidence that, for example, older heroin users do not reduce their intake as they age (Rosen *et al*, 2011). As a consequence, the proportion of older adults seeking treatment in the USA for substance misuse is increasing relative to younger adults, and the pattern of drug use is changing, with increased consumption of heroin (Arndt *et al*, 2011). The population of older methadone users is also increasing (Rosen *et al*, 2008) and their quality of life is poor (Rajaratnam *et al*, 2009). An estimated 90% of heroin users initiate use before the age of 30 years, with only 3% initiating after 50 years of age (Wu & Blazer, 2011). Although the level of illicit drug use is higher in the USA than in most countries (with the exception of New Zealand), the

pattern of use might be the same and this might have an impact on services for drug dependence and for the older population generally.

Challenges for practice

Primary care practitioners and community geriatricians might face rising demand for medical care from this population, because the ageing process seems to be stimulated by long-term opiate use (Reece, 2010), with rapid physiological ageing promoting multisystem disease (Reece, 2012). As a consequence, older heroin users are likely to experience considerable levels of morbidity associated with speedier physiological ageing (Beynon, 2009). Practitioners are already thinking about the differences between physiological and chronological ageing in our ageing population, and should be aware of the contribution that opiate dependence makes to physiological ageing.

Older people with a history of heroin dependence have poorer physical health and social functioning than their non-dependent peers (Grella & Lovinger, 2012) and show high levels of major depression, post-traumatic stress disorder, generalised anxiety disorder, arthritis and hypertension (Rosen *et al*, 2008). Enquiry about past and present opiate use in baby boomers with major disorders should become routine.

The severity of the impact of opiate dependence should not be underestimated. Liver disease (through hepatitis C infection) has become the most common cause of mortality among ageing, opioid-dependent people in an Australian cohort (Gibson *et al*, 2011). There is evidence even in abstinent heroin users of damage to the structural integrity of the prefrontal cortex, with limitations in executive functioning, memory and attention control (Cheng *et al*, 2013). Awareness of opiate-related cognitive impairment is therefore important for GPs and community mental health services, and questions about opiate use need to be included in memory assessment pathways. Since this population has long-standing low expectations of health services (Beynon *et al*, 2009), it can become both vulnerable and relatively hard to reach outside of crisis situations.

Clinical management

Given the hard-to-reach nature of this patient group, Wu & Blazer (2011) propose that treatment

approaches to older illicit drug users should include least-intensive, non-confrontational and supportive options that build self-esteem first.

Psychological, social and health concerns and contexts can then be addressed at an age-appropriate pace (Wu & Blazer, 2011). This is potentially labour-intensive work and can be difficult to manage in general practice beyond a small number of patients. In all probability, these complex cognitive-behavioural approaches will need trained counsellors who are motivated to work with this vulnerable population. Since so little is known about what is really effective for this population, empirical research that adequately describes the mental and physical health problems and needs of older illicit drug users is required (Rosen *et al*, 2011).

Case study 8

Owain, a 61-year-old man who rarely visited his GP, saw a locum to ask about a new symptom that troubled him, tiredness. He explained to the locum that he was hepatitis C positive, and normally went to see a hepatologist at the local hospital when concerned about new symptoms, but was unable to do so because the specialist was away on sick leave. There was no entry about hepatitis C in the GP's electronic medical records, but later the locum found some letters from the hospital reporting Owain's visits in the archived paper record. Owain was obtaining methadone from a private doctor, and the hepatologist was functioning as his GP. The locum initiated some investigations for the tiredness symptom, added hepatitis C to the problem list in the medical record, and sent an email to the senior GP of the practice explaining what she had done and why. Methadone maintenance might be the best approach for Owain, but he has compartmentalised his care and thereby might have reduced his chance of getting a programme of supportive care.

Benzodiazepines

Although not recommended for long-term use (> 4 weeks), a common problem encountered in general practice is repeat prescribing of benzodiazepine hypnotic drugs. Repeat prescription of this class of drugs can lead to tolerance, dependence and misuse.

Misuse of long-acting benzodiazepines is associated with multiple risks, including falls, drowsiness and ataxia, confusion, impaired psychomotor function, deficits in visuospatial and verbal learning,

processing speed, road traffic accidents and dependence. Dependence can lead to anxiety, depression and cognitive impairment, causing further medical and neuropsychiatric morbidity in this vulnerable population.

Challenges for practice

Those who misuse psychoactive prescription medicines do not differ greatly from those who do not, as shown by one study of septuagenarian women (Folkman *et al*, 1987). They did not have more stressors and did not cope with them differently, but they did experience stress more intensely, felt more threatened by it and were more dissatisfied with their own coping.

Substance misuse in older women is a complex, dynamic phenomenon shaped by social and personal experiences, including violence, mental health disorders and social obligations (such as caring for others) (Koenig & Crisp, 2008), and is often unintentional (Blow & Barry, 2012). It is therefore a biopsychosocial problem typical of general practice.

Primary care provides an ideal, albeit challenging, setting in which to screen for misuse of prescribed and illicit drugs in older people. However, substance misuse in older people is often not recognised, or if recognised poorly treated (Blow & Barry, 2012). Symptoms of substance misuse, including cognitive impairment and falls, can be easily confused with other conditions of ageing. Many barriers encountered by the clinician (time, knowledge about the patient and their medical history) and created by the patient (denial, communication problems, discomfort realising or admitting and discussing the problem) need to be overcome to ensure screening for substance misuse is effective.

Presentation and recognition

The misuse of prescribed medication can present in many ways. It is important to remember the misuse might not always be deliberate and there might be many contributory factors relating to the patient and the prescriber. It could involve patients taking higher doses of prescription drugs or 'borrowing' from a friend or relative. It might also occur when prescribed drugs are taken for a longer duration than desired, resulting in tolerance and

dependence, or taken for symptoms or reasons other than the approved indication. Older people with substance misuse problems do not show typical addiction features like drug-seeking behaviour, dose escalation, use to 'get high' or illegal sourcing. This failure to fit stereotypes of drug misuse makes the problem difficult for professionals to recognise (Koenig & Crisp, 2008). At the same time, gender, age and substance misuse intersect to create a stigma that discourages the person from reporting their problem, acknowledging its impact on them and their life, and seeking help (Koenig & Crisp, 2008). As primary care consultations become more rushed and services become more fragmented, misuse of psychoactive prescription medication might become more difficult to detect.

Clinical management

Primary care practitioners can frame the problem of substance misuse in older people in terms of patterns that can be more easily recognised. For example, one definition of psychoactive prescription medicine misuse is any maladaptive and persistent use of medication that leads to functional impairment (like worsening gait or cognitive impairment) or to psychological distress (including social isolation). Another suggested definition of medication misuse is that it involves deliberately taking prescribed or over-the-counter medicines at higher-than-recommended doses for extended periods, with hoarding of drugs and combination use with alcohol (Gossop & Moos, 2008). These working definitions place substance misuse within familiar clinical frames of age-related functional loss, prescription medicine management and observed behaviour (hoarding, alcohol use).

Case study 9

Mallika, a 68-year-old woman sharing a flat with her son and daughter (both unemployed), had persistent back pain for which her GP prescribed non-steroidal anti-inflammatory medication and, at her request, occasional small amounts of nitrazepam. A local pharmacist called to say that Mallika's recent prescription had been modified, with 20 nitrazepam being replaced by 200. This had never happened before. When asked about this, Mallika admitted that she had been taking nitrazepam regularly for many years, buying it through her son, who attended a methadone clinic. She was struggling to afford the amount she needed, and so had modified the prescription. After some discussion she agreed to see a

drugs counsellor and her GP regularly, and opted to replace her nitrazepam with diazepam before withdrawing slowly. This strategy was chosen because of her high degree of dependence, typified by the long duration of treatment, high doses, and a history of anxiety problems (NICE, 2013). The GP also decided to pay more attention to pain control.

Learning points

- Opiate misuse stimulates physiological ageing, increasing the risk of hypertension, arthritis and cognitive impairment, but opiate users have low expectations of medical care and might delay help-seeking for physical illnesses.
- Given the hard-to-reach nature of people who misuse opiates, treatment should include least-intensive, non-confrontational and supportive therapeutic options that build self-esteem, while also being aware of worsening physical health.
- Benzodiazepine misuse among older people is more common in women than in men. For older women, it is a complex, dynamic phenomenon shaped by social and personal experiences including violence, mental health disorders and social obligations (like caring for others) and is often unintentional. Less is known about factors associated with benzodiazepine misuse by older men, other than problem drinking.

Alcohol-related brain damage

Alcohol-related brain damage (ARBD) covers a spectrum of disorders that affect memory, executive functioning and judgement induced by chronic and heavy alcohol consumption resulting in some degree of brain damage or dysfunction. ARBD includes alcohol-related brain injury and dementia.

Epidemiology and demography

The prevalence of ARBD has always been difficult to estimate correctly, as patients underreport or genuinely forget the amount of alcohol they have drunk. These patient factors are confounded by not having a standardised sensitive instrument to diagnose ARBD effectively. Doctors are reluctant to ask about alcohol history in older people when they get admitted to hospital, thus missing an opportunity to diagnose ARBD. Many surveys concentrate on Wernicke–Korsakoff syndrome, which is a relatively rare manifestation of ARBD. Current diagnostic classifications such as ICD-10 are not sensitive enough to diagnose ARBD. The prevalence information in the literature is mainly from Scotland and Australia.

ARBD is a condition associated with socioeconomic deprivation. There are population pockets where ARBD has a particularly high prevalence, related to environmental conditions.

Younger people with dementia might particularly feel stigma as it is not generally understood that younger people can develop dementia. Younger people with dementia might also reject or deny that they have dementia as they see it as a condition of the old. This may lead to delayed diagnosis and an underestimate of the true prevalence or ARBD.

Community studies

Western Scotland has the highest prevalence of Korsakoff's syndrome in Western Europe and it is on the increase. In Lanarkshire, the prevalence is 7.34 per 10000. In a study of 266 hostel dwellers, 82% had cognitive impairment and 78% were drinking hazardously. The majority of these were over 50 years of age (Gilchrist & Morrison, 2005). The prevalence of ARBD among homeless hostel dwellers was 21%. There is a need to actively identify and treat this population and to help them move out of homelessness into more settled communities. MacRae & Cox (2003) reported a prevalence of 14.4 per 10000 in the Inverclyde region of Scotland.

Lishman (1990) suggested that ARBD accounts for 10% of the dementia population and Harvey *et al* (1998) reported that it accounts for 12.5% of dementias in under 65s. The prevalence of ARBD is increasing (Ramayya & Jauhar, 1997; Smith & Hillman, 1999; Jacques, 2000). As many as 50–80% of patients presenting to alcohol treatment services might show signs of cognitive impairment; this disrupts treatment adherence, engagement and prognosis. Harvey *et al* (1998) found an overall prevalence of cognitive damage of 67.2/100000 population aged 30–64 years in London; 12.5% of these were diagnosed with ARBD (prevalence of 6/100000 in the same sample).

Post-mortem studies

A meta-analysis of 40000 consecutive post-mortems undertaken in the USA, Europe and Australia found evidence of cerebellar or other ARBD in the mammillary bodies of 0.5–1.5% of the general population (Cook *et al*, 1998). Torvik *et al* (1982) found that 12.5% of 561 people dependent

on alcohol showed changes related to Wernicke–Korsakoff syndrome and 26.8% showed cerebellar atrophy. By combining these findings and those of Victor *et al* (1989), it is estimated that 35% of alcohol-dependent people will exhibit post-mortem evidence of ARBD (Wernicke–Korsakoff syndrome/cerebellar atrophy). Notably, only 16% of people with evidence of post-mortem brain damage had any clinical presentation of the problem while alive (Harper *et al*, 1998). This low prevalence was suggested to be due to the national policy of enriching bread wheat flour with thiamine, but it could be confounded by the fact that people with enduring alcohol misuse have significant problems with proper nutrition. Deriving data from 2212 sequential autopsies performed in 1996–1997 in Australia, Harper *et al* (1998) identified 25 cases of Wernicke–Korsakoff syndrome with a prevalence of 1.1; 5.9% of the sample had a history of alcohol misuse.

Secondary care data

In a prospective study of incidence in a metropolitan hospital in Australia, Wood *et al* (1986) found that 0.07% of total admissions, 1.7% of patients admitted with alcoholism and 13% of patients admitted with alcoholic psychosis exhibited Wernicke–Korsakoff syndrome. Smith & Atkinson (1995) estimated that alcohol is a contributory factor in 21–24% of all people of working age who present with dementia.

A tertiary referral service in the Wirral region of the UK receives an average of three referrals per month from general hospital in-patient units in the the Liverpool area (Emmerson & Smith, 2015). Estimates based on ICD-10 codes revealed that there were 70 admissions with a diagnosis of ARBD to acute general hospitals in the Nottingham area in 2011–2013.

ARBD discharges have been increasing in Lanarkshire at a significant rate (more than three times the Scottish average), with particular increases among males 40–60 years of age and among individuals from more affluent areas (Research Advisory Group, Lanarkshire Alcohol and Drug Partnership, 2010). A retrospective case-note survey of referrals to four older-adult liaison

psychiatry services in Scotland for admissions from 2006 to 2011 found 108 patients who had a history of alcohol misuse; 42 were given a diagnosis of alcohol-related brain injury.

Demographics

The highest prevalence of ARBD is found in the 50–60 years age group. A study of 266 homeless hostel dwellers in Glasgow (Gilchrist & Morrison, 2005) revealed that the majority (89%) were male and the mean age was 53 years; 78% were drinking hazardously. People with ARBD might have had periods of unemployment due to their alcohol misuse, leading to financial instability, which in turn affects their ability to secure a tenancy. Thus, they might become homeless or end up in temporary accommodation.

Alcohol consumption in women is on the increase, as is ARBD in women who started excessive alcohol misuse early in life. Women tend to have a shorter alcohol-use history and present 10–20 years earlier than men. A study of 108 people with ARBD in five care homes in Scotland (1996–2003) showed that four-fifths of these were male (Glasgow Social Work Services, 2003). The average age on admission was just under 54, with a range of 31–76 years; 47.6% of women were admitted under the age of 50 years, compared with 24.1% of males.

Neuropsychiatric assessment

There is no single scale that can measure all the complexities of ARBD. The scales used are for measuring alcohol consumption, cognition, and functional capability (see p. 11).

Radiological findings

The presence of thinner gyri and wider sulci has been a consistent finding in brain-imaging studies of patients with ARBD. There is also loss of grey and white matter with a reduction in cortical neurons from the superior frontal cortex, hypothalamus and cerebellum. Brain imaging using

conventional magnetic resonance imaging (MRI) of people with a history of chronic alcohol dependence has revealed that several brain structures are smaller in volume than the same structures in non-alcoholic controls. Areas that are particularly affected are the frontal lobes, which are involved in reasoning, judgement, and problem-solving. Radiological studies suggest that older people are especially vulnerable to the damaging effects of alcohol. It is also believed that women show consistently more vulnerability to these changes in the brain than men.

In general, alcoholics evaluated before and after a period of abstinence show some recovery of tissue volume, whereas alcoholics evaluated again after continued drinking show further reductions in brain-tissue volume. A new MRI technique known as diffusion tensor imaging (DTI) can aid in detecting the degradation of fibres (i.e. white matter) that carry information between brain cells. DTI reveals the integrity of white matter tracts that link regions of the brain to each other. With DTI, researchers studying people who misuse alcohol excessively have been able to detect abnormalities in white matter not visible with conventional MRI. DTI can be useful in evaluating the mechanisms that underlie structural and functional brain changes seen with abstinence and relapse. Alcoholic men and women also show thinning of the corpus callosum and pons. Some of them show hyperintensities in the white matter that might be due to excess fluid and swelling, demyelination or gliosis.

Implications for public health and future care provision

ARBD is an important issue for people who are affected, the health and social care professionals who will look after them, and the public health officials and commissioners who fund services. ARBD does not fall into any specific diagnostic classification and appropriate criteria for diagnosis have not been widely accepted, although Oslin *et al* (1998) defined alcohol-related dementia according to the following criteria: deterioration of memory and one other higher cortical function that is not explained by delirium, other substance misuse or

withdrawal. A modification of the Oslin criteria for ARBD has recently been proposed (Wilson, 2013).

There are diagnostic and treatment issues with dual diagnosis, as depression and anxiety often coexist with ARBD. Because of chronic, excessive alcohol misuse, people with ARBD are also prone to multiple physical conditions such as hypertension, diabetes, nutritional disorders, and cardiovascular and other systemic disorders. They are often reluctant to access or accept help for these physical illnesses.

If they do, then adherence to treatment and support might also be poor. There are other challenges in looking after this group in the UK: they need help from multiple services, such as alcohol, medical, gastroenterology, old age psychiatry, dementia and Social Services. Because of their poor adherence, these patients are often neglected as they are considered a drain on resources, with inconsistent outcomes. The services for ARBD require joined-up thinking between primary care, medical and mental health secondary care, public health and Social Services.

Local policies regarding older people with substance misuse problems should consider access on the basis of need, the elimination of age barriers, easy transfer between services, joint working, clear definition of which will be the lead service in these circumstances, simple protocols regarding admission for detoxification, and redefining the safe drinking limits for older people.

Clinical management should aim to reduce the toxicity of alcohol withdrawal and possibly manage withdrawal in the community. Wilson *et al* (2012) described five therapeutic phases of rehabilitation of ARBD, from acute management to long-term placement for suitable cases. Principles of short-term management include immediate measures for detoxification and improving general nutrition, including use of parenteral thiamine as necessary. Any comorbidities or physical or psychological complications should be managed effectively.

Medium-term management includes rehabilitation, ideally in a specialised unit for ARBD (e.g. Forest Hospital in Mansfield, UK), although there is a significant shortage of these facilities. In the Wirral region of the UK, use is made of designated care homes with specialised knowledge of treating

such patients. Rehabilitation to improve cognitive deficits and physical and mental health requires support and structured programmes and interventions for up to 2 years. It is important to advocate and manage abstinence from alcohol to maintain the recovery.

Long-term management depends on the person's recovery during rehabilitation. Once ARBD is established, the prognosis for recovery can be split broadly into quarters: 25% make a complete recovery, 25% make a significant recovery, 25% make slight recovery, and 25% make no recovery (MacRae & Cox, 2003). If patients make a complete or partial but significant recovery, they can be managed in the community, with the help for the family and local services depending on their disability. If they have made slight or no recovery during rehabilitation then institutional care in care homes might be the only viable option.

Case study 10

Jennifer, a 49-year-old woman, was admitted to a general hospital with a 3-year history of heavy drinking of up to 60 units per week secondary to relationship issues. She was previously an infrequent social drinker. She lived with her teenage daughter and two younger children. Her estranged partner still maintained contact with her. When Jennifer went into hospital in late 2013, he moved in with children to help them. Once she was detoxified, it was clear that she had short-term memory impairment and some difficulty with executive function. She was depressed and anxious with insomnia and she was started on an antidepressant. As there was no facility for rehabilitation for this group of patients, she was admitted to a rehabilitation centre. Using the principles of rehabilitation, she underwent structured activities and received one-to-one and group psychological support. Her progress was assessed through neuropsychological and functional assessment. Her ex-partner and her children were also involved (as was her preference).

Jennifer's depression improved, and she became happier and more cooperative. She became adherent to interventions and activities, unlike in the beginning. She started going to stay with her family on graded leave and had home visits and support from the multidisciplinary team staff. Once she was deemed motivated to remain abstinent, Jennifer was discharged home after a total of 6 months' rehabilitation in hospital. Her short-term memory impairment is better but still has significant deficits. She is being supported to live with this deficit and her family is also receiving training to support her at home with this difficulty.

Learning points

- ARBD is a chronic condition for which there are no accepted standard assessment tools, criteria for diagnosis or management pathway. The condition places high demands on services' resources.
- There is poor awareness of this condition among health professionals and care home staff.
- There is a shortage of specialised rehabilitation centres or care homes to look after people with ARBD.
- Patients with ARBD are likely to have physical comorbidities with functional limitations.
- There is a need for joint working of primary care, hospitals, health professionals, specialist care homes and voluntary sector agencies.
- If diagnosed early, treated correctly and rehabilitated appropriately, patients with ARBD have a good chance of recovery and can return to live in the community with support.
- Abstinence from alcohol is essential for recovery in ARBD.

Recovery

Helping people into treatment

Accessing services

After brief advice, people may begin to recognise the need to change and ask for help. To many professionals, this will feel like success, but it is only the start of the story. It is often said in the drug and alcohol field that it is easy to get people off a substance – the challenge is to get people to stay off it. The first step in this process of change is referral to specialist services. Professionals need to familiarise themselves with the various treatment and support options available for alcohol and drug users. But, perhaps more importantly, professionals must ensure they are positive about recovery.

Those working with older people can sometimes appear pessimistic about change. ‘She’s not long for this world, so why should she change?’ is a familiar attitude. The reality is different. Research evidence shows that if older people enter treatment they will do as well as, if not better than, younger patients. Older people have a richer vein of experience to draw on and might be more motivated to change because they have experienced more harm.

Nonetheless, barriers do exist that are related to both older people and specialist services, and these need to be addressed. Older people might have grown up in a culture where having an alcohol or drug problem was seen as something shameful: a moral failure. They might also have lived in a culture in which asking for any sort of help was much more stigmatised than it is today. They might simply not know what help is available. They might fantasise that help involves admission to a psychiatric ward. Professionals need to be aware of and careful to counter these attitudes.

Specialist services

Alcohol and drug services in the UK have traditionally not seen many older people and have tended not to make special provision for them. This attitude needs to be rethought. Services need to audit themselves by considering the following questions.

- Are premises accessible to older people?
- Are premises sufficiently private?
- Are leaflets appropriate and legible? Posters, leaflets, nameplates and hand-outs will need to be readable by someone with poor eyesight. Agencies should consider whether they need to change their literature to make it more relevant to older people.
- Are services advertised in places that older people will see and is it explained what the service involves?

Alcohol and drug services need to reach out directly to older drinkers and drug users. In addition to preparing special leaflets and posters, they need to start forging links with older people’s services. This will help to break down the ignorance and stigma surrounding alcohol and drug treatment but this cannot be a one-sided process. Those working with older people should take the initiative and contact their colleagues in substance misuse services to push for these changes and to forge useful links.

Time

People working with older people with substance misuse issues often comment that, compared with working with younger people, more time is required with older people. For some this is a matter of cognition or a slower pace of living, but might also be because older people have a much deeper and richer range of experience to relate. Assessments can take longer because there is often more to tell.

Home visits

Older people with substance misuse issues are more likely to require home visits. This will not always be the case, but a service that fails to offer this option will be excluding a large number of older people.

Building holistic recovery

The trend in the substance misuse field over the past few years has been a move away from treatment as something that is 'done to' the person to a recovery-focused approach, which emphasises the person's own involvement in mobilising personal, social and community resources to aid their recovery. This provides a more holistic model with which to spark and sustain recovery.

Abstinence versus controlled drinking

The common perception is that recovery is about patients stopping substance use completely. With both illegal and prescribed drugs, it will be hard to advocate a form of controlled use. However, for some problem drinkers, controlled drinking might be possible. This is most likely to apply to people with shorter histories of drinking and little physical or psychological damage. This might, therefore, apply to some late-onset drinkers who have begun to drink in response to, for example, bereavement. Whether this will apply to a particular older patient is something to be discussed with treatment services. However, knowing that the option of controlled drinking exists might be an incentive that engages some people.

Starting the recovery process

Workers should always explain to a new patient how the treatment service will work. This is an important step in putting people in charge of their own recovery. Older people might not need this any more than younger people, but it is worth bearing in mind that they might have greater concerns about confidentiality and be less certain about how the intervention will work.

Making a plan

At the heart of the recovery process will be a care plan. This will have been jointly developed with a worker and be owned by the patient. This will identify the key areas that need to be addressed and focus around recovery-oriented themes, such as:

- breaking destructive routines
- dealing with unhelpful 'baggage'
- building the rest of my life.

One-to-one and group interventions

For many older people, as with younger people, recovery will involve working to resolve emotional issues that have contributed to the drinking or drug use. This will generally be through individual or group interventions. There is no evidence that older people have a greater need for individual approaches. Indeed they may benefit from, and contribute positively to, group processes. In many late-onset drinkers, the key issue might be bereavement or loss. This might be the loss of a partner, but might also be loss of status or physical/cognitive ability. However, it is important to bear in mind that older people might have a range of other emotional issues. Just like with younger people, these can include sexuality, histories of abuse, relationship problems, recollections of traumatic experiences and many others.

Being practical

While addressing these underlying issues, it is important that services pay attention to various practical issues that might impede recovery or increase risk.

- Is the home environment conducive to change (i.e. clean, warm and secure)?
- Is the person's diet adequate?
- Is sleep a problem?
- Are there dangerous drug combinations?
- Have they had a thorough health check?
- Is drinking and driving an issue?
- Do they have a smoke alarm fitted?
- Are there trip hazards in the house (e.g. at the top of stairs)?

- Are there any other environmental hazards, such as an unstable television or simply the risks of general clutter?
- Are alcohol and prescription and illicit drugs safely stored if young people have access to the property? This is not simply about the drinker's own children. Grandchildren and other relatives might visit the house. In some areas, vulnerable drinkers have been exploited by local young people who have stolen drink or drugs. Some vulnerable patients have also been exploited for their benefits, and might require safe storage for cash.

A team approach

Older people with substance misuse issues might be experiencing other difficulties in their lives, such as poor housing, loneliness and physical or psychological problems. This range of issues emphasises the need for a team approach to older patients. Substance misuse services should seek to include other health and social welfare agencies in helping the patient. Equally, other statutory and voluntary bodies should ensure that substance misuse agencies are involved where necessary.

Befriending or buddying

It is likely that the recovering drinker's or drug user's social life or daily structure will need developing. Long hours might have been filled by the substance misuse and other activities ignored. Others will have used alcohol or drugs as a way to access social contact. Simple boredom and lack of contact with other people will be a major challenge to recovery. Introducing a befriender or 'buddy' to provide social contact can enhance the likelihood of recovery at any age, but particularly with a group that might find developing social activities more of a challenge.

The family and informal carers

Many older people are cared for by someone outside the professional care agencies – the so-called 'informal' carers. These relationships should not be overlooked, as informal carers can be an invaluable source of help in resolving a problem. Again, a positive attitude is vital for these carers.

Recovery will be assisted if they believe that change is possible. Agencies should foster the belief that the situation is not bleak and that change can take place. However, agencies should consider whether:

- the helper is colluding with the drinking by buying in alcohol or other substances
- the frustration of helping an intoxicated older person could lead to abuse
- the relationship is putting such a strain on the carer that it might lead to the carer drinking or developing other problems.

It must never be forgotten that the carers also need care. Local alcohol and drug agencies can be used by carers to find support. Some agencies will have specific groups or one-to-one programmes for carers.

Al-Anon and Families Anonymous (sister agencies to Alcoholics Anonymous and Narcotics Anonymous, respectively) offer specific support to family members and are an invaluable resource. Details of local groups can be readily accessed via the internet.

Case study 11

Bob is a 72-year-old man who lives in sheltered accommodation. He used to go on frequent binges, during which he consumed a great quantity of scotch and became very aggressive with his neighbours, who were largely vulnerable women in their 80s. He was also allowing his flat to become increasingly squalid. This was a great cause of concern to his neighbours, the staff on the site and other professionals who worked with him.

At first Bob was unconcerned about his behaviour, and health workers were very negative about the chances of recovery in a man who did not want to change. However, the local substance misuse service assessed him. He opened up about his feelings of isolation and loneliness. The service identified a local peer mentor who would simply visit him at first. Bob responded positively to the interest and companionship of this befriender. The latter began to motivate Bob to thinking about changing his behaviour and eventually persuaded him to enter treatment services. Once in services, Bob flourished and despite occasional stumbles has stopped drinking. He now attends Alcoholics Anonymous regularly and is offering volunteer input in a support group for other drinkers.

Challenges to recovery

The process of change

Real recovery is not a smooth process. After an initial period of confusion, many people will feel elated and believe that they have overcome their problems. This elation is a natural part of the change process and will ultimately give way to a more realistic and possibly daunting realisation of the challenges ahead. It is important that professionals recognise these changes in mood and provide appropriate support: a note of caution during periods of elation and positive support at other times.

Dealing with difficult times

At times, recovery will be a struggle. Patients will feel that the task before them is too great and be tempted by the easy route of returning to an old and familiar lifestyle. At this point, the greatest help that people can give is empathy. Patients need others to talk to: this could be a worker in a service, a supporter in a self-help group, family or friends. Every patient will need to identify people they can talk to in tough times.

Relapse

The greatest single concern during recovery is relapse. It is important to balance two potentially contradictory messages about it. Relapse is a problem but it is not the end of the world. Professionals need to emphasise the need to avoid relapse and work should be undertaken to manage the risk of relapse by identifying risk situations (e.g. a family party) and working out how to deal with it (e.g. avoiding the invitation or finding someone to provide support). Nonetheless, the reality is that the majority of people will lapse or relapse during their recovery. It can be seen as a natural part of the change process. It is important to encourage the person not to see themselves as a failure and abandon their efforts, but instead use it as a learning experience to strengthen the recovery process.

Depression

Older people and people with substance misuse problems are both groups that are prone to depression. Professionals need to be aware of this both as an impediment to long-term recovery and as a pointer to the risk of suicide, which is strongly linked with depression and substance misuse. Thorough risk assessment and attention to the person's mood are two of the hallmarks of a supportive service.

Long-term support

Once people begin to establish their recovery, consideration must be given to what support they will need once their main treatment is finished. Some people can maintain themselves without support, but they are in the minority.

Most people will benefit from attending a support group such as Alcoholics Anonymous or Narcotics Anonymous, a SMART (Self-Management and Recovery Training) recovery group (which is also self-help but does not use the 12-step model) or a group run by a local alcohol or drug agency. The availability of each of these options varies from area to area, but some support is usually available. Professionals should ensure that such long-term support is in place before people are discharged from drug and alcohol services.

Learning points

- Recovery is a long journey and patients need various forms of support.
- It is important to maintain a positive attitude to older people with substance misuse issues, as the evidence shows that they can do well in treatment.
- There are barriers to recovery on the part of both services and older people themselves, which must be overcome.

Older women and alcohol misuse

The number of older female drinkers

On average, women drink less and are less likely to have an alcohol problem than men. However, the gap between the level of men's problem drinking and women's problem drinking is narrowing. The number of UK women drinking above recommended guidelines has risen by over half in the past 15 years (Royal College of Psychiatrists, 2011).

Table 2 shows the probable balance of drinking between the genders once data from the Department of Health on the national ratio of male to female drinkers are combined with data on drinking in a borough of 300 000 people with average levels of alcohol-related harm (Drummond *et al*, 2005). These data apply to all women. In older age groups, the pattern will have its own distinct features. Women outnumber men in the adult population, but this is particularly the case in older age groups. Simple arithmetic indicates that the gap between the number of older male and older female drinkers begins to close and, in the 70+ age groups, it is likely that women will be most at risk of alcohol-related harm. In this age group, most early-onset drinkers (those who have long-term patterns of dependent or heavy drinking) will probably be men. The bias towards women will be most marked among late-onset drinkers. This

group of people begin to drink problematically in later life, usually in reaction to a life crisis. Women are far more likely to experience bereavement, loss and consequent isolation, because they are more likely to outlive their partners. Although government research suggests that older people are likely to know less about units and limits than younger age groups, there is little difference on this between the genders.

Effects of alcohol on older women

At all ages, women are more vulnerable to alcohol-related harm than men. This is due to a lower average body size, a higher body fat to water ratio (resulting in a higher blood alcohol level for an equivalent alcohol intake) and the slower rate at which women break down alcohol. At older ages, these differences are still relevant and may be more marked if someone has low body weight or physical, psychological or social problems.

However, all the identifiable effects of alcohol misuse are ones that men might also experience. These include falls and accidents, depression, poor nutrition, poor memory and the effects of mixing drugs and alcohol. But there is a risk that physical, psychological or social vulnerability increases the effects of alcohol misuse on women.

Table 2 Ratio of male to female problem drinking

Drinking type	Males	Females	Male:female ratio
Hazardous/harmful drinking	38 800	18 224	32:15
Dependent drinking	6 715	2 239	6:2

Domestic abuse

Women are more likely to experience domestic abuse than men. The level of abuse declines in older age groups, but these data may conceal patterns of abuse that are not being openly reported.

Alcohol is a significant contributory factor in domestic violence. It is not an excuse for, or explanation of, violence but it can increase the likelihood of tensions turning to violence and can exacerbate the level of violence perpetrated.

Older women and treatment

As we have said, current evidence suggests that older people do as well (if not better) in treatment than younger people. However, women of all ages might be concerned about the stigma of admitting they need help with an alcohol problem. More stigma is attached to women who drink; on the other hand, women are more likely to seek help than men. National statistics say that alcohol-dependent women are more likely than alcohol-dependent men to be in treatment (26% v. 9%, respectively; Lifestyle Statistics, Health and Social Care Information Centre, 2014).

Nonetheless, older women might need to be helped to enter treatment by:

- ensuring that publicity material addresses their gender and age group
- offering initial sessions that are private and confidential and do not require mixing with patients such as young drug users who might appear threatening (even if this is not the case)
- offering some outreach to engage the person and support them into treatment centres.

The Aquarius service in North Birmingham has had success in attracting older women by offering group sessions involving art and flower arranging.

Ethnicity

The ethnicity of the drinker will add a further dimension. People of white British, Irish and European heritage are much more likely to have

alcohol-related problems than any other group in the UK, and statistics show that in older age groups this bias is even greater (Hurcombe *et al*, 2010). As a result, an older woman from a BME community, especially one where drinking is unacceptable, will find it even harder to admit a problem and seek help.

The combination of alcohol and prescribed drugs

People over 65 years of age use more prescription and over-the-counter drugs than younger people and women are more likely to use these drugs than men. This is an added complication that means any alcohol use might be problematic.

Case study 12

Rose was widowed 3 years ago. Previously, she would drink when out with her husband and friends but since his death she has become lonely and isolated. She insisted that she would not visit a bar alone, so her drinking took place in the privacy of her home. In her worst sessions, Rose drank a bottle of red wine in an evening. She often forgot how she got herself to bed and has occasionally fallen down while alone in the house. She brushed off any suggestion that bruising was the result of drinking.

Case study 13

Alexandra was a 75-year-old woman diagnosed with Alzheimer's disease. In the early stages of the condition, she lived with her daughter, Susan, who was unemployed and drank heavily. Susan became frustrated with her mother's criticism of her for her drinking and other problems. As a result, Susan confined her mother to bed and refused her food and drink until she had lost half her body weight. On three occasions, urgent hospitalisation was required to save Alexandra's life because of malnutrition. She now has carer support and day hospital care.

Learning points

- Overall, women are less likely to drink and experience alcohol-related harm than men.
- This gender gap narrows in later life and late-onset drinkers are likely to be women drinking in reaction to life crises such as bereavement, isolation or physical decline.
- Alcohol might affect older women more seriously than older men, but there are no uniquely female conditions. However, there

is a risk that physical, psychological or social vulnerability increases the negative effects of drinking in women.

- Older women might be the victims of domestic abuse or elder abuse and alcohol is often a contributory factor in these situations.
- Women might also be in a carer role for other drinkers and clinicians should be aware of this possibility and of the stresses this will impose.

Drug–drug interactions in older people

Alcohol, nicotine, opiates and benzodiazepines account for the vast majority of substances taken by older people. It is important to note that these substances can interact with each other by adding to the same group of adverse side-effects at a receptor (pharmacodynamic) level, rather than just through (pharmacokinetic) interaction at the metabolism stage. At high levels, alcohol and benzodiazepines both have a sedative action and, taken together, increase the risk of falls. They also suppress the drive for breathing, which can be fatal when taken with high doses of opiates, which also suppress this drive.

There are three main pathways for metabolising substances, all of which involve particular groups of enzymes in the body. These enzymes are also responsible for the metabolism of other drugs, which can interact with substances and lead to an increased level (through enzyme inhibition or blocking the rate of breakdown) or decreased level (through enzyme induction or speeding up the rate of breakdown) of a particular substance in the blood.

Drug–alcohol interactions

In spite of being a drug, alcohol is bought from shops, public houses and restaurants. It also has a number of potential adverse effects when taken with both prescription and non-prescription drugs. This is all the more relevant to older people, in whom polypharmacy is common and as many as 28% of older people in the UK are taking a medication that has potentially more harm than benefit. The most common drugs implicated are benzodiazepines and amitriptyline (Gallagher & O'Mahony, 2008).

Women are at particular risk of drug interactions with alcohol (Baxter & Preston, 2010). Women tend to have a lower proportion of body water (in which alcohol is distributed before it leaves the body) than men. A larger amount of alcohol is released into the bloodstream after drinking a similar amount and concentration of alcohol when compared with men, so that a woman of the same weight as a man would end up with a 50% higher blood alcohol level. This calculation is based on those who regularly drink, have had a meal and weigh 55–70 kg (Baxter & Preston, 2010). Higher blood alcohol levels would occur if alcohol was drunk on an empty stomach and lower values in much heavier individuals. Common substances that are known to interact with alcohol are detailed below.

Analgesics

Painkillers containing morphine and codeine can increase the effects of alcohol on attention and coordination, as well as on breathing, which has resulted in some fatalities, particularly with dextropropoxyphene. Alcohol has also been associated with rapid release of morphine from extended-release preparations.

Antibiotics

Alcohol can cause a small reduction in the absorption of erythromycin. Disulfiram-like reactions can occur in those who drink alcohol and take second-generation cephalosporins (e.g. cefamandole, cefmenoxime, cefoperazone, cefotetan, latamoxef), sulfamethoxazole/trimethoprim, metronidazole, isoniazid and ketoconazole. Disulfiram is sometimes used in the treatment of alcohol dependence (under specialist supervision), producing an unpleasant reaction after drinking small amount of alcohol. This includes flushing of the face, throbbing headache, palpitations, nausea

and vomiting. Small amounts of alcohol, such as those included in many oral medicines, may be sufficient to precipitate this reaction – even toiletries and mouthwashes that contain alcohol should be avoided (Joint Formulary Committee, 2014). The reaction can last for several hours.

Anti-allergic drugs

Some drugs used to treat allergies can cause drowsiness, which can be increased by alcohol. These include hydroxyzine, diphenhydramine and promethazine.

Anticoagulants

Alcohol can affect the blood level of warfarin in two ways: acute intake can increase blood levels and chronic drinking can reduce blood levels of warfarin.

Anti-emetics

Metoclopramide can increase the rate of alcohol absorption, thereby raising blood alcohol levels.

Anti-epilepsy and mood-stabilising drugs

Heavy drinking might increase the rate at which carbamazepine is cleared from the body, thereby lowering its level in the bloodstream. Acute intoxication from alcohol can be considerably increased by taking meprobamate.

Anti-hypertensive drugs

Drinking over recommended limits over a long period of time raises blood pressure and might reduce the effectiveness of drugs used to treat high blood pressure. Some people also experience low blood pressure, dizziness and fainting shortly after having drunk alcohol. The risk of these interactions increases with age. Patients who take glyceryl trinitrate for angina pectoris while drinking alcohol might feel faint and dizzy.

Food

Food and milk decrease the absorption of alcohol and meals increase the metabolism of alcohol via the gut wall. The concentration and fizziness of alcoholic drinks can alter the rate of absorption of alcohol. Foods rich in serotonin (e.g. bananas)

taken with alcohol might produce adverse effects such as diarrhoea and headache.

Nicotine

Nicotine patches can increase the effect of alcohol on heart rate and reduce the time taken to reach highest blood alcohol levels.

Over-the-counter drugs

Aspirin can interact with alcohol to damage the stomach lining in people drinking over recommended limits over long periods of time, which leads to an increased likelihood of bleeding into the gut. This is also the case for other non-steroidal anti-inflammatory drugs. Paracetamol can interact with alcohol in people drinking over recommended limits over long periods of time and might lead to liver damage. Panax ginseng (Asian ginseng) speeds the clearance of alcohol from the body and lowers blood alcohol levels.

Psychotropic drugs

All drugs that can cause drowsiness have the potential to enhance the effects of alcohol in this sensation, which includes amitriptyline, clozapine, mirtazapine, olanzapine, quetiapine, trazodone and zuclopenthixol. Benzodiazepines and related drugs for anxiety and sleep problems increase the effect of alcohol on attention and coordination. Alcohol can also increase the plasma levels of diazepam.

Drug–drug interactions

Opiates

There has traditionally been a clear distinction between opiates and opioids. Opiates are naturally occurring and are derived from morphine and codeine; opioids are synthetic or semi-synthetic drugs based on opiate structure. Although the two have been used interchangeably, it is now more common to refer to both as opiates.

Buprenorphine, methadone and loperamide

These drugs are inhibited by antibiotics (ciprofloxacin, clarithromycin, erythromycin, itraconazole, ketoconazole and ritonavir), the anti-hypertensive diltiazem, grapefruit juice and the antidepressant

nefazodone. They are induced by drugs for epilepsy (carbamazepine, phenytoin, phenobarbital), the antibiotic rifampicin and the herbal remedy St John's wort.

Oxycodone, codeine, dihydrocodeine and tramadol

These drugs are inhibited by the antidepressants fluoxetine and paroxetine, the anti-emetic metoclopramide and the anti-arrhythmic drug quinidine.

Pentazocine

Pentazocine is inhibited by the anti-arrhythmic drug amiodarone, the beta-blocker propranolol, antibiotics ciprofloxacin and rifampicin, the antidepressants duloxetine and fluvoxamine, the antipsychotics olanzapine and clozapine, and caffeine.

Other opiates

Morphine, naloxone and naltrexone are minimally affected by pathways involving the above opiates and therefore have clinically insignificant drug interactions with non-substances.

Nicotine

Nicotine alone has few interactions with other drugs. Its metabolism is inhibited by ketoconazole, isoniazid and grape juice. Phenobarbital and rifampicin are associated with enzyme induction. However, the most common exposure to nicotine is through tobacco smoke. This smoke contains polycyclic aromatic hydrocarbons, chemicals that affect the same enzyme pathway affected by metabolism of the drug pentazocine. However, in this case, smoking is associated with enzyme induction or inhibition of the drugs affecting the metabolism of this opiate. The anti-epilepsy drug carbamazepine is induced by chronic smoking.

Drugs for anxiety and insomnia

The sedatives and anxiolytics benzodiazepines and buspirone, as well as the benzodiazepine-antagonist flumazenil, are metabolised by the same pathway as buprenorphine, methadone and loperamide and are therefore induced and inhibited by the same drugs as these opiates. The same is true of the hypnotic drug zopiclone.

Driving and substance misuse in older people

Older drivers are often blamed for poor driving skills and accidents on the road. This is far from the truth. In 2011, there were more than 4 million over-70-year-old drivers in the UK (Lang *et al*, 2013). Over-75s make up 6% of all licence holders and account for 4.3% of all deaths due to traffic accidents. Drivers 16–20 years of age make up just 2.5% of all drivers but are 13% of those killed and seriously injured (Lang *et al*, 2013).

Older drivers

With age, there is a reduction in strength, coordination and flexibility, which can have an impact on the ability to control a vehicle safely. Age-related factors are slow reaction time, inability to spot hazards in time, pain or stiffness of the neck resulting in slow or incomplete turning of the neck to either side, and impaired hearing and visual acuity. All these factors can impair the patient's ability to keep track of road signs, pedestrians and traffic. It is important that older drivers have regular vision and hearing check-ups, talk to their GP about the effect of medications on driving, and listen to their spouse (or other family members who might travel with them in the car) about their driving, have adequate sleep and rest, and not drink and drive.

Dementia

Driving with dementia increases the risk of traffic accidents. One study comparing 30 people with Alzheimer's disease and 20 matched controls found that the people with Alzheimer's disease were 8 times more likely to have a motor vehicle accident (Freidland *et al*, 1988). In another study, older people with Alzheimer's disease had twice the average crash rate per year of controls (Drachman & Swearer, 1993).

In the UK, 22% of drivers with dementia continue to drive for 3 years after the onset of the illness; two-thirds of these people were judged to be impaired to drive by the assessing physician (O'Neill *et al*, 1992). In patients with dementia, driving impairment is more likely in people with greater disease severity and men with arthritis. It is commonly accompanied by poor self-assessment. Family assessment, neuropsychological measures, on-the-road evaluation and testing in a driving simulator can all assist in gauging the level of risk. Patients with dementia might have some insight into their driving abilities or into the need to give it up for safety reasons. Brashear *et al* (2002) developed a series of 12 questions for dementia caregivers about the patient's driving habits, whether the caregiver thought the patient was a safe driver, and attentiveness on the road. Specifically, the questions addressed becoming lost, running red lights, obeying stop signs, staying in lane, finding vehicle controls, confusion on one-way streets, turning the wrong way onto a motorway, driving too slowly or too fast, and almost hitting another vehicle, object or person. All participants then took an on-road driving evaluation. The total score on the 12 driving questions, as well as on the attentiveness subscale, predicted whether individual passed or failed the road test. In particular, the total score on the driving questions was able to correctly identify 83.3% of the patients who would fail the road test.

The MMSE also correlates with driving scores and poor driving results (Fitten *et al*, 1995). There is some evidence to show that performance on some tests of executive functioning is moderately related to real-world driving abilities, including tests for executive functioning such as the clock-drawing test, the Proteus Maze Test, trail-making tests, and tests of visual attention and perception (Rizzo *et al*, 1997; Ott *et al* 2000, 2003; Lesikar *et al*, 2002).

On-the-road testing that assesses performance in traffic has been correlated with MMSE scores, visual memory tests and traffic sign recognition tests. Odenheimer and colleagues (1994) showed that road testing of older people with and without dementia is safe, reliable and valid. Performance on road tests is related to visual perception, praxis, divided attention and executive functioning (Stern & White, 2003). These tests assess technical knowledge, anticipatory decision-making, priming, attention and decision-making. There was no correlation with reaction time. There are 17 testing centres in the UK doing on-the-road tests, along with some pre-driving memory-related assessments. A simulator test assesses emergency stopping, hazard perception and reaction time (Harvey *et al*, 1995). The group who performed poorly on this test also had lower scores on the MMSE and cognitive tests of non-verbal and visual perception abilities. Impaired visuospatial abilities can lead to impaired driving abilities in those with dementia. A suggested clinical pathway for assessing and managing driving after assessment in a memory clinic is shown in Appendix 5.

Case study 14

Rudi, a 74-year-old man, was referred to the memory clinic with a 10-month history of forgetfulness and change in behaviour. He became agitated and at times was aggressive to his wife. His short-term memory was particularly affected compared with his long-term memory. He scored 19/30 on the Montreal Cognitive Assessment (Nasreddine *et al*, 2005). He did not feel that anything was wrong with him and he believed that his memory was okay. He came to the clinic as a result of pressure from wife and children. While he drove to the clinic, his wife noticed that he twice forgot where he was going when he reached a junction. He also became more anxious while driving. His wife reported that Rudi had a 'tot of whiskey' to reduce his anxiety while driving.

Rudi categorically denied this and became angry when he was asked details about his driving. He also became angry when it was suggested he be referred for an on-the-road assessment and that he should not drive until then. Eventually, he agreed to be referred to a local centre for the sake of his family.

He reluctantly attended the centre and underwent off-road and on-the-road assessments. He passed the off-road tests, but did not pass the on-the-road assessment, as he did not brake on two occasions and the instructor had to use his brake to stop them from hitting another vehicle. His reaction times were slow and he showed undue hesitation. He was told about the test results immediately and was asked not to drive. He was told that the results of the test would be sent to the clinic and to the DVLA. He was seen in the clinic, where the results of the test were explained, and he reluctantly agreed not to drive any more. His children were very supportive and agreed to provide transport for him for going out every week. He was offered counselling to come to terms with this significant life event. His drinking was thought to be contributory to his impaired driving performance. He was not drinking above recommended limits and a brief intervention was offered.

Learning points

- All older drivers are not unsafe drivers.
- Only 22% of patients with dementia continue to drive safely for 3 years after diagnosis.
- Reaction time alone is not valid for assessing competence to driving.
- Neuropsychological tests on executive functioning can predict driving difficulties in dementia.
- Patient and family questionnaires are useful tools to assess safety of driving (Appendix 6).
- It is important to understand and acknowledge a patient's reaction to not driving any more and alternate transport arrangements should be explored with the patient and their family.
- Driving is a complex activity and it is difficult to achieve a balance between the rights of the driver and the imperative to maximise road safety. This becomes more challenging in dementia, as we know that cognitive skills will decline at some point during the course of dementia, which will affect the patient's driving abilities.

Conclusions

Substance use, misuse and dependence can transform the clinical presentation of any older person who attends almost any medical specialist. The number of older people is rising rapidly and so too is the number of comorbid conditions with which they are afflicted. This inevitably leads to a higher number of prescription drugs being taken, quite apart from continuing tobacco, alcohol and illegal drug use.

It is incumbent on medical practitioners to lead teams that can assess, detect, treat, manage and refer to relevant services. Thus, it is mandatory to have an understanding of key practical techniques that can lead to the improvement of health and social function in older people with substance problems. This demands awareness of the distinctive attributes of older people, appreciation of the complex interrelationships between addiction and other medical and psychiatric conditions, confidence in the implementation of effective interventions, a grasp of the legal and ethical contexts pertinent to older people, meticulous support of teams, and being perceptive about the needs of families and carers. It is not only a detailed knowledge of the acute effects, adverse actions, and chronic consequences of substance use, misuse

and dependence that is needed, but their interactions, and impact on medical and mental illnesses. There is also the need to be gentle, tolerant and soothing to patients and families who are struggling with harrowing situations, sometimes over a lifetime. A sense of hope and optimism is justified because the evidence suggests that many older people want to stop misuse and with treatment do curtail their substance use.

The guide aims to illustrate to professionals who work with older people how to go about the assessment, treatment and management of substance misuse and its associated problems. Another objective is to highlight the special issues involved when treating older people and how to offer an age-appropriate service, so that older people are not barred from the opportunities for improvement that are available for younger people. This involves considering the needs of older people at every point of delivery, including availability, accessibility, intelligent adaptation of facilities, and sympathetic modification of treatment options. In short, the guide demonstrates how specialists can work together to help older people with substance misuse issues so that they can achieve a healthy, active future.

Appendix 1.

Types of professional and support roles

Counselling

Improving Access to Psychological Therapies (IAPT) services, voluntary sector, substance misuse services.

Drug/alcohol workers

The voluntary sector, old age and substance misuse services.

Health

Substance misuse psychiatrists, general adult/rehabilitation psychiatrists, liaison psychiatrists, liaison old age psychiatrists, general practitioners, old age psychiatrists, psychiatric liaison nurses, mental health nurses, community psychiatric nurses, general nurses, district nurses, elderly, mentally infirm (EMI) and non-EMI nursing home nurses, pharmacists, community pharmacists, dentists, paramedics, voluntary sector support workers.

Housing and homelessness

Housing officers, sheltered accommodation wardens, homeless support workers.

Criminal justice

Forensic psychiatrists, police.

Management

Team managers, service managers, substance misuse commissioners.

Social work

Older adults/substance misuse/physical disability social workers, home carers.

Long-term care

EMI and non-EMI residential care workers.

Generic support

Day care staff, healthcare assistants.

Appendix 2.

Current standards and guidelines

Age Concern (2007) *Improving Services and Support for Older People with Mental Health Problems*. Age Concern.

Alcohol Concern (2013) *15:15. The Case for Better Access to Treatment for Alcohol Dependence in England*. Alcohol Concern.

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National Institute for Health and Clinical Excellence (2011) *Psychosis with Coexisting Substance Misuse: Assessment and Management in Adults and Young People* (Clinical Guideline 120). NICE.

National Treatment Agency for Substance Misuse (2012) *Progress Made, Challenges Ahead*. NTA.

Appendix 3.

Additional resources

Alcohol and Health in Older People (website) (<http://www.alcoholandolderhealth.co.uk>).

Centre for Mental Health, Department of Health, Mind, *et al* (2013) *No Health without Mental Health: Implementation Framework*. Department of Health (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216870/No-Health-Without-Mental-Health-Implementation-Framework-Report-accessible-version.pdf).

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National Institute for Health and Care Excellence. *Shared Learning: Implementing NICE Guidance* (database) (<https://www.nice.org.uk/proxy/?-sourceUrl=http%3A%2F%2Fwww.nice.org.uk%2Fsharedlearning>).

National Treatment Agency for Substance Misuse (2011) *Building Recovery in Communities: A Summary of the Responses to the Consultation*. NTA (<http://www.nta.nhs.uk/uploads/bricresponsefinal17052012.pdf>).

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Appendix 4.

Levels of care

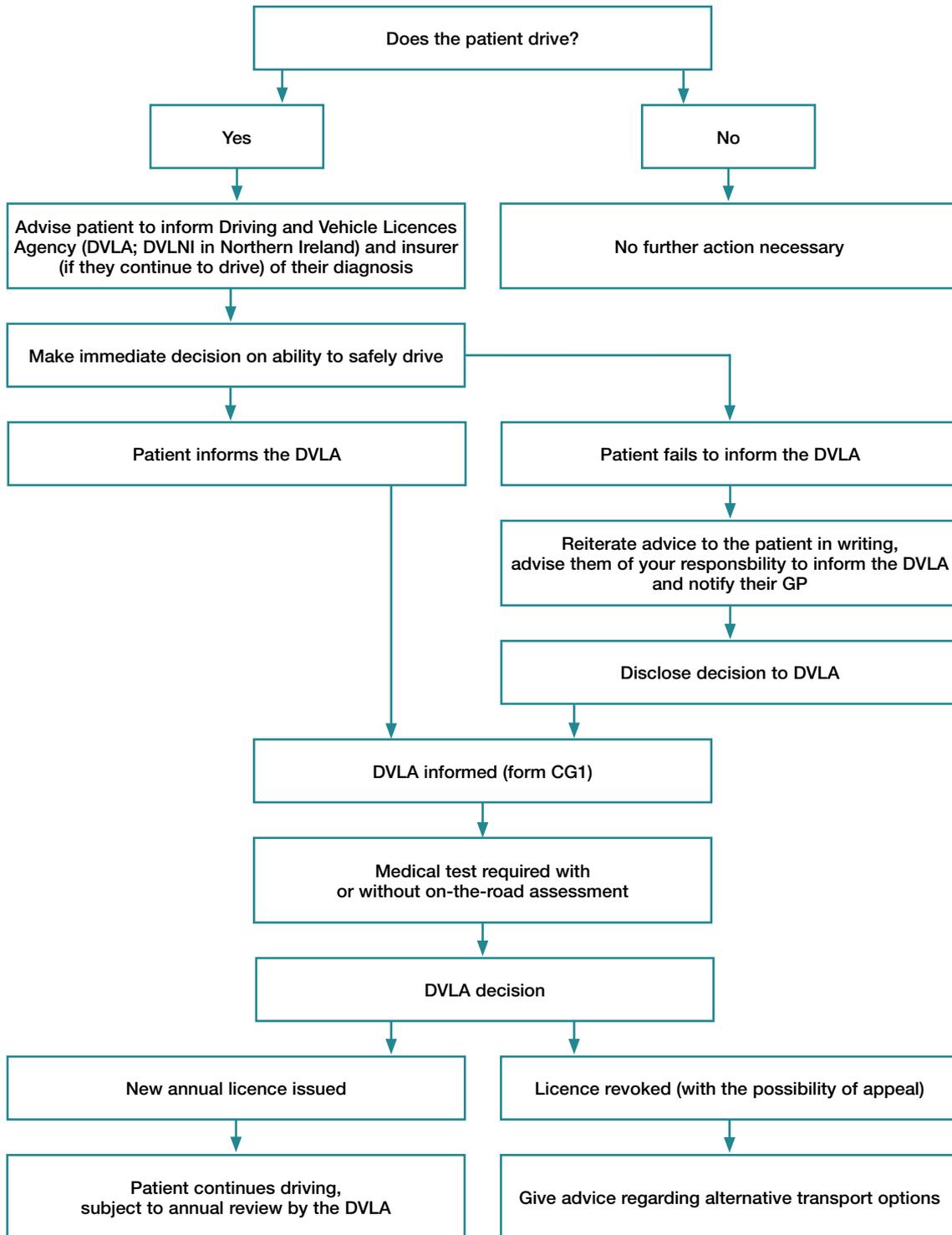
Table A1 Levels of care

Level	Interventions	Settings
1	<ul style="list-style-type: none"> Alcohol brief interventions, comprising brief structured advice based on an assessment of the individual's drinking behaviour, as well as brief support for behavioural change based on motivational interviewing principles and skills Referral of those requiring more than simple brief interventions for specialised substance misuse treatment Partnership or 'shared care' with specialised substance misuse and generic services. 	<ul style="list-style-type: none"> Primary healthcare services Acute hospitals (e.g. emergency departments) Psychiatric services Social Services Homelessness services General hospital wards
2	<ul style="list-style-type: none"> Substance misuse-specific information, advice and support, extended brief interventions and brief treatment to reduce harm related to substance misuse Substance-misuse-specific assessment and referral of those requiring more structured treatment Partnership or shared care with Level 3 or 4 	<ul style="list-style-type: none"> Specialist substance misuse services Primary healthcare service (e.g. GPs with special interest) Acute hospitals (e.g. emergency departments, care of the elderly and liver units) In-patient and community old age psychiatry services
3	<ul style="list-style-type: none"> Comprehensive substance misuse assessment Case management, care planning, psychosocial interventions and review Management of dual diagnosis 	<ul style="list-style-type: none"> Specialist substance misuse services Specialist prescribing from GPs with special interest Dual diagnosis old age psychiatry services Voluntary or independent services providing care-planned, structured substance misuse treatment
4	<ul style="list-style-type: none"> Management of complex cases Range of evidence-based prescribing interventions, in the context of a package of care, including medically assisted withdrawal (detoxification) in in-patient or residential care and prescribing interventions to reduce risk of relapse 	<ul style="list-style-type: none"> Specialised statutory, independent or voluntary sector in-patient facilities for medically assisted alcohol/drug withdrawal (detoxification), stabilisation and assessment of complex cases Residential rehabilitation units for substance misuse In-patient provision for dual diagnosis

Source: adapted from National Treatment Agency for Substance Misuse (2006).

Appendix 5.

Clinical pathway: driving after dementia diagnosis



Source: adapted from Breen *et al* (2007).

Appendix 6. Family and patient driving questions

Table A2 Questions for the family about the patient's driving

Question	Answer
1 Do they get lost in familiar places?	Yes No
2 Do they miscalculate speed and distance?	Yes No
3 Do they pass red lights or not keep in lanes correctly?	Yes No
4 Do they hit curbs often?	Yes No
5 Do they drive the wrong way in a roundabout or junction with motorways?	Yes No
6 Have they had any recent accidents or near misses?	Yes No
7 Do they forget routes, even familiar ones?	Yes No
8 Do they drive too fast or too slow?	Yes No
9 Is there a history of aggression/road rage or impulsive acts?	Yes No
10 Do they show situational avoidance?	Yes No
11 Do they have less confidence in driving?	Yes No
12 Are they easily irritated?	Yes No
13 Do they not want to drive in the evening/at night?	Yes No
14 Do they get anxious and agitated at detours?	Yes No
15 Do they have difficulty separating colours (e.g. grey cars at dusk, black cars at night)?	Yes No

Source: adapted from Iverson *et al* (2010).

Table A3 Questions for the patient about their driving

Question	Answer
1 I may get lost on familiar roads	Yes No
2 I have concerns about my ability to drive safely	Yes No
3 Others have concerns about my ability to drive safely	Yes No
4 I have limited the amount of driving that I do	Yes No
5 I avoid driving at night	Yes No
6 I avoid driving in unfamiliar roads	Yes No
7 I avoid driving in busy traffic	Yes No
8 I will drive faster than the speed limit if I think that I won't be caught	Yes No
9 I will pass a red light if I think that I won't be caught	Yes No
10 I will drive after drinking more alcohol than I should	Yes No
11 When I get angry with other drivers, I honk my horn, gesture, or drive up too close	Yes No
12 I have difficulty with eyesight	Yes No
13 I have trouble with my hearing	Yes No
14 I drive miles a week	

Source: adapted from Iverson *et al* (2010).

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