

OUR

I
N
V
I
S
I
B
L
E

ADDICTS

College Report CR211

Our Invisible Addicts, 2nd edition

College Report CR211

March 2018

Approved by: The Policy and Public Affairs Committee (PPAC) in January 2018

Due for revision: 2025

Front cover image:

Professor Ilana Crome, *Plum Time*, 2017, acrylic on paper, 40 x 50 cm

© 2018 The Royal College of Psychiatrists

College Reports constitute College policy. They have been sanctioned by the College via the Policy and Public Affairs Committee (PPAC).

For full details of reports available and how to obtain them, contact the Book Sales Assistant at the Royal College of Psychiatrists, 21 Prescot Street, London E1 8BB (tel. 020 7235 2351; fax 020 7245 1231) or visit the College website at: www.rcpsych.ac.uk/publications/collegereports.aspx

The Royal College of Psychiatrists is a charity registered in England and Wales (228636) and in Scotland (SC038369).

Contents

Foreword	4
Acknowledgements	6
Working group	7
Executive summary	8
Key recommendations	15
Introduction	20
Notes and thoughts from a patient	23
Public health and substance misuse in older people	28
Assessment of substance misuse	43
Alcohol-related brain damage and physical complications of substance misuse	61
Treatment	68
Service delivery and implementation	90
Education and training	115
Ethical and legal considerations for older people with substance misuse	127
Research and development	147
Conclusion	152
References	158
Appendix	178
Abbreviations	180
Glossary	182
Models of service	185

Foreword

The publication of *Our Invisible Addicts* in 2011 represented an important landmark in recognising the extent of substance-related health problems amongst older people and that the special service needs to deal with the complexity of such problems, which often involve co-morbid mental and physical health problems, polypharmacy and psychosocial adversity.

Since then, our knowledge concerning the clinical and public mental health aspects of substance misuse in older people has continued to advance but substance misuse amongst older people continues to grow as the population of “baby boomers” ages, increasing both the number of older people and the percentage of the older population with experience of substance misuse.

Given the further experience and knowledge we now have and the growing need, it is now timely to readdress the issue and to review and revise the original report and build on its recommendations. With this revision, we seek to build on the progress made over the past six years and to emphasise anew that including older people with substance problems in national policies is imperative and that there is a need for organisational reform to tackle this burgeoning issue.

The complex constellation of risks that older people with addictions face and create can result in presentation to a variety of services such as older people’s mental health, addictions, primary care, acute hospital settings, social care, housing, criminal justice and the voluntary sector. In many cases the staff in these settings have little specialist knowledge of how to deal with such complexity.

As a result, in this revision we consider and advocate the further development of a clinical workforce with the appropriate knowledge, skills and attitudes to provide identification, assessment, treatment, and assist in recovery and referral for substance misuse in an older population. In particular, we see a need to reverse the loss of multi-professional specialist training in addictions that has taken place in recent years.

We also explain how the problem can be best addressed through an approach that is multi-professional, involving psychiatry, nursing, pharmacy, occupational therapy, psychology, social work and the voluntary sector (including peer support).

This report also addresses the important public mental health aspect. The public is poorly informed about the relationship between drinking and health risks in older people. There is also a need to improve

knowledge and awareness around the increasing use of illicit and prescription drugs, as well as the harm caused by novel psychoactive substances, substances acquired using the internet, and other addictions accompanying substance misuse such as gambling.

Improving health and social outcomes for older people with substance-related disorders requires a rigorous approach and this report collates the most up-to-date information relevant to practising psychiatrists, their teams and other colleagues.

There is a need for best practice to be implemented and extended to all relevant settings including the criminal justice system and end of life care. As we do so, we should continue to research the effectiveness of the different approaches taken, using both qualitative and quantitative measures to evaluate this.

This report, which has been developed with representation from a patient, the Royal College of Psychiatrists, the Royal College of General Practitioners and the British Geriatrics Society, provides the latest milestone on the journey towards developing the best possible response to this important problem.

Professor Wendy Burn, President

Professor Colin Drummond, Chair of the Faculty of Addictions

Dr Amanda Thompsell, Chair of the Faculty of Old Age Psychiatry

Acknowledgements

We would like to acknowledge the constant encouragement of the Faculty Chairs, Dr Amanda Thompsell and Professor Colin Drummond.

Without the unstinting assistance of Kitti Kottasz, Committee Manager; Dr Adrian James, Registrar; and Thomas Denning, Policy and Standards Manager, we would have found the process far more demanding.

The commitment, patience, good humour and meticulous approach of Christine Goodair ensured that we were able to meet a very tight deadline.

We would like to thank Dr Cheryl Kipping (Consultant Nurse for dual diagnosis, South London and Maudsley NHS Foundation Trust) for sharing her expertise with the group and commenting on previous drafts of this report.

Professor Peter Crome, Emeritus Professor of Geriatric Medicine, Keele University, contributed valuable insights, and we are appreciative of the input of Dr Marc Mandell, Consultant Liaison Psychiatrist.

Working group

Professor Ilana Crome and Dr Tony Rao were responsible for co-editing the report, contributing to individual chapters and coordinating its format, content and style, as well as checking for accuracy.

Professor Ilana Crome (Co-Chair) Royal College of Psychiatrists (Faculty of Addictions Psychiatry), Emeritus Professor of Addiction Psychiatry, Keele University; Honorary Consultant Psychiatrist, South Staffordshire and Shropshire Healthcare NHS Foundation Trust; Honorary Professor, St George's, University of London

Dr Tony Rao (Co-Chair) Royal College of Psychiatrists (Faculty of Old Age Psychiatry), Consultant in Old Age Psychiatry, South London and Maudsley NHS Foundation Trust and Visiting Lecturer in Old Age Psychiatry, Institute of Psychiatry, Psychology and Neuroscience, London

The following working group members contributed to writing individual chapters:

Dr Amit Arora British Geriatrics Society, Consultant Physician/Geriatrician, University Hospitals of North Midlands NHS Trust and Honorary Clinical Lecturer, Keele University

Dr Conor Barton Royal College of Psychiatrists (Faculty of Old Age Psychiatry) and Consultant in Old Age Psychiatry, Belfast Health and Social Care Trust and Honorary Lecturer at Queen's University Belfast

Dr Ed Day Royal College of Psychiatrists (Faculty of Addictions Psychiatry), Senior Clinical Lecturer in Addiction Psychiatry, Institute of Psychiatry, Psychology and Neuroscience, London and Consultant in Addiction Psychiatry, Birmingham & Solihull Mental Health NHS Foundation Trust

Dr Arun Dhandayudham Royal College of Psychiatrists (Faculty of Addictions Psychiatry), Joint Chief Executive Officer and Medical Director, WDP

Mrs Christine Goodair Programmes Manager (Substance Misuse), Population Health Research Institute, St George's, University of London

Ms Diane Goslar Patient Representative, Royal College of Psychiatrists

Professor Steve Iliffe Royal College of General Practitioners and Emeritus Professor of Primary Care for Older People, University College London

Dr Anand Ramakrishnan Royal College of Psychiatrists (Faculty of Old Age Psychiatry) and Consultant in Old Age Psychiatry, Nottinghamshire Healthcare NHS Trust

Executive summary

Introduction

This report has harnessed the collective knowledge, skills and experience of health professionals and others with experience in the field of substance misuse.

It presents an up-to-date and evidence-based revision of *Our Invisible Addicts*, with the following terms of reference:

- Portraying lived experience of substance misuse.
- Examining public health aspects.
- Emphasising the importance of comprehensive assessment.
- Highlighting the relevance of alcohol related brain damage and physical complications.
- Detailing the nature, range and benefits of age-sensitive treatment approaches.
- Exploring best practice in service delivery and implementation.
- Developing education and training to improve workforce competencies.
- Suggesting future areas for research and development.
- Clarifying the role and relevance of ethical and legal aspects of care.

Notes and thoughts from a patient

- Public campaigning should be expanded to reduce the stigma associated with alcohol problems.
- There should be greater recognition of the enormity of the problem – detailed research and publication of statistics should be widely marketed.
- Early identification of the problem should be keenly promoted through training of general practitioners.
- There should be provision of more alcohol treatment centres generally including those specifically for older people.
- There should be a substantial increase in provision of aftercare services.
- More health professionals (including old age psychiatrists) should be trained to deal specifically with alcohol problems, and there should be more addiction psychiatrists.
- Education at all levels should be developed.
- The economic impact of alcohol should be determined by detailed research and publication of how it affects the economy, what revenues and what expenses are affected and by how much.

Public health and substance misuse in older people

- The proportion of older people with substance misuse continues to rise more rapidly than can be explained by the rise in the proportion of older people in the UK.
- The “baby boomer” population born between 1946–1964 (now aged between 53 and 71 years old) is at the highest risk of substance misuse which is rising within the older population.
- The misuse of illicit drugs such as cannabis and amphetamines, prescription painkillers such as morphine and buprenorphine, as well as gabapentinoid drugs is now recognised as a growing public health problem.
- Substance misuse in older people is associated with reduced life expectancy and accelerated ageing, which is further compounded by socio-economic deprivation.
- Death rates in older people with substance misuse are higher than the general older population.
- Deaths related to poisoning from substances in older people have more than doubled over the past decade.
- Recent revision of lower risk drinking guidelines for all age groups may still be too high for some older people, especially those who have accompanying physical and mental disorders and who are receiving medication.
- Older people with mental disorders such as depression, anxiety, and personality disorder have higher rates of substance misuse than those without mental disorders.
- Psychosocial factors such as social isolation, financial problems, retirement, life events, pain and insomnia have strong associations with alcohol misuse
- There is strong evidence for the potential effectiveness of minimum unit pricing in reducing alcohol-related harm, particularly in people with both harmful alcohol use and socio-economic deprivation.
- Awareness of alcohol units among older people is improving but there is a general lack of health awareness around lower risk drinking limits among the public. This also includes practitioners assessing older people with alcohol misuse.
- There is large gap in evidence for both the prevention of alcohol misuse in older people and evidence assessing the impact of public health interventions to reduce cognitive decline or preventing dementia.
- Prevention of alcohol misuse needs to be balanced carefully against the role played by alcohol in maintaining social cohesion among older people.

Assessment of substance misuse

- When presenting to clinical services, all older people should be screened for alcohol and tobacco misuse and be asked about other substance use and misuse.
- Older people misusing substances should be offered a full assessment of their substance misuse in mental health services and offered referral to specialist substance misuse services, if required.
- There should be special consideration of older people's distinctive needs, with assessment considering the physical, psychological and social changes consequent on ageing.
- Assessment may need to be ongoing and frequently reviewed, and involve the collaboration of health and social care professionals, families and carers over the longer term.
- Major life events, presentation with physical and psychological symptomatology (particularly if unexplained), and inconsistencies or contradictions in the presentation, should prompt re-screening or assessment.
- Although applying the standard criteria for the diagnosis of dependence to older people may be useful, this must be undertaken thoughtfully as they may not always be applicable.

Alcohol-related brain damage and physical complications of substance misuse

- Current services are poorly equipped in the assessment, treatment and care of older people with alcohol-related brain damage (ARBD).
- ARBD has a wide range of mechanisms involved in its development, with Wernicke-Korsakoff Syndrome and alcohol-related dementia being the most common clinical presentations.
- Rising rates of hospital admissions for ARBD has implications for clinical service provision.
- Assessment, diagnosis, harm reduction and recovery require specialist skills and involve a joint approach between health and social care professionals, as well as families, carers and Third Sector providers.
- Reduction of, or abstinence from, harmful drinking may be associated with partial reversibility in cognitive function.
- Long-term care is not a substitute for appropriate rehabilitation.
- Substance misuse is associated with a wide range of physical complications that require appropriate assessment, treatment and aftercare.

Treatment

- There is a paucity of UK-based research and evidence for treatment interventions and services relating to the management of substance use disorders in older people.
- The evidence to date indicates that many older people with substance misuse want to abstain and have the capacity to change.
- Older people benefit from treatment, and in some cases, can have better outcomes than younger people.
- Older people respond well to brief advice and motivational enhancement therapy.
- Pharmacological treatment should always be provided as part of a management plan which includes psychosocial interventions.
- Pharmacological treatments should be used judiciously and monitored frequently.
- Treatment of co-existing psychological and physical conditions is critical to achieving optimal effectiveness of treatment for substance misuse.
- Age-specific programmes demonstrate positive outcomes for older adults.
- Intensive treatments tend to focus on abstinence as an outcome, and overall success rates at 6-12 months compare favourably with younger populations.
- Generally, the more treatment delivered, the better the outcome.
- Key components of treatment are to be supportive, non-judgmental, non-confrontational, flexible, sensitive to gender and cultural differences, focused on client functioning and on coping and social skills, and holistic.
- Close liaison between practitioners and agencies, as well as family and carers, who are involved in the care of the patient is vital.
- Future research requires standardisation of age range, diagnostic tools and assessment instruments, treatment options and style of delivery in order to enhance comparability.
- The inclusion of older adults in all treatment intervention studies in substance misuse should be the norm.
- Older people should not be excluded from treatment because of their age: treatment should be available, attainable and accessible.

Service delivery and implementation

- Improved access to, and the availability of services – age should not be a bar to receiving high quality care for substance misuse.
- Improve collaboration, communication and cooperation between health and social care professional teams, families and carers at all stages of treatment and recovery.
- Develop care pathways for substance misuse within mental health services for older people and mental health treatment for older people within substance misuse services.
- Specify operational definition(s) of integrated care and models of care.
- Review addiction psychiatry and old age psychiatry services to formulate a plan for change.
- Ensure “mainstreaming” of skills in the management of substance misuse within mental health services for older people.
- Encourage the development of innovative models of service delivery for older substance misusers.
- Improve public and professional education about the need for, and role of, the specialist through education, training and workforce development.

Education and training

- Education and training at all levels are central to addressing the challenges posed.
- Key skills for managing addiction and substance misuse in older people can be readily incorporated into new models of medical training, and training of other health professionals.
- An expansion in healthcare staff with skills in addictions will be needed to improve education and training across health and social services, and the public, third and private sectors.
- The Royal College of Psychiatrists has a major role as a source of expertise and to aid the medical allied health professionals and others who can be expected to do the majority of work in primary and secondary care. An expansion of the numbers of psychiatrists skilled in working with older people with addictions is required in order to deliver the necessary wider services.

Ethical and legal considerations for older people with substance misuse

- Older people with substance misuse should not be assumed to lack capacity even if they make what may be perceived as unwise decision(s).
- Consider 'substance misuse' as a possible cause in any older person with fluctuating mental capacity or elder abuse.
- All practicable steps including timely and planned review should be undertaken to optimise the ability to demonstrate capacity in older adults which is time- and task-specific.
- Apart from situations where mental health interventions are covered by statute, all adults can refuse medical procedures contemporaneously or in advance when they are capacitous.
- If a healthcare professional suspects substance misuse in an older person, joint working with other teams and social care involvement should be undertaken to assess capacity and proactively identify any associated safeguarding concerns.

Research and development

- For too long, research into this subject has been ignored.
- Older people need to be included in addiction research as they are under-represented in research studies.
- Barriers to recruitment and retention of older people in research studies include lack of motivation, poor health, sensory impairment, cognitive impairment, mood disorders, mobility problems and frailty. Evidence for strategies to enhance participation is limited.
- Research will inform engagement and retention with treatment and service responses.
- Greater understanding of the economic impact of alcohol and other substances on individuals, families, communities and society is needed.

Conclusion

- The older substance misuser is poorly represented in the range of policy initiatives, though this may be very gradually changing.
- Greater value needs to be placed on the requirements and wishes of older substance misusers.
- Diverse approaches are required to minimise the health, social and economic consequences for a population of “baby boomers” who have the fastest increase in rates of substance misuse in the population. These include raising awareness, limiting availability of, and access to, substances, and improving access to care.
- Campaigning is required to reduce the stigma associated with alcohol and substance misuse among the public and professionals.
- Greater recognition of the scale of the problem should be promoted via wider dissemination of up-to-date research.
- Evaluation of the economic impact of substance use in older people should be initiated.
- Given the distinctive features of substance misuse in older people, identification of how some of their special health and social needs differ from younger adults should be reflected in policy.
- Due to the strong relationship between substance misuse and mental and physical health in older people, it needs to be acknowledged in policy development that management of complex comorbidities is the norm.
- Approaches to treatment and rehabilitation need to be tailored and adapted from those found to be effective in younger people, and development of novel approaches needs to be prioritised.
- There needs to be provision of more addiction services focused on the needs of older substance misusers.
- Enhance training at all levels including training more addiction psychiatrists and old age psychiatrists with specialist knowledge to manage the specific needs of older substance misusers.
- Due to a dearth of research, there is scarce specific evidence to inform policy decisions in older people who misuse substances. There is a lack of research on policies that specifically target the older person’s substance misuse and associated harms.
- To meet older substance misusers’ needs and develop coherent integrated policies, a concerted effort is required by stakeholders including the National Health Service, independent sectors, mental health charities and other relevant charitable organisations, and older people themselves, with financial support and direction by government to develop coherent integrated policies.
- A national strategy focused on older substance misusers should be developed that is imaginative, viable, sustainable and evidence-based.

Key recommendations

General

For too long, the topic of substance misuse in older people has been ignored. A new approach, that is non-discriminatory, comprehensive and needs-led, is now essential. We recommend that a national strategy outlining cohesive integrated policies devised by stakeholders, with financial support and direction by government, and driven at local, regional and national levels be developed and implemented.

This can be achieved in the following ways:

- Promote public and professional education to increase awareness of, and reduce stigma around, substance misuse in older people by working with patients and carers, the media, health and social care providers, Royal Medical Colleges and Allied Health Professionals.
- Recognise that older people have distinctive needs. The treatment and care of this invisible, complex and vulnerable group should be reflected across public health, clinical, service delivery, research and development, educational, legal, ethical and policy domains by working with patients and carers, health and social care providers, educational, charitable and research organisations, Royal Medical Colleges and Allied Health Professionals.
- Improve dissemination of up-to-date information about substance misuse in older people to improve understanding of the scale of the problem by informing patient and carer groups, the media, professional and charitable organisations.
- Encourage further debate with professional, charitable and research organisations on, and defining what constitutes, “older people”, in recognition that older substance misusers are a heterogeneous group with different sub-groups requiring diverse responses from services, for professional training, and for research policy.
- Emphasise the mental health, physical health, and social and financial implications for public health and society as a whole from *not* meeting the needs of older people with substance misuse by working with health and social care providers, charitable and research organisations, Public Health England and NHS England.

Public health

- Further improve communication with the media, the Faculty of Public Health and NHS England to improve public education in recognising that current lower risk drinking limits in older people may in fact be too high for some older people, particularly those with complex mental and physical health problems.
- Support the implementation of minimum unit pricing (which has a strong evidence base for reducing alcohol-related harm) across the United Kingdom through joint working with the Alcohol Health Alliance and the British Medical Association.

Assessment and treatment

- Forge closer links between health and social care services, as well as family and carers who are involved in the care of the patient to ensure that optimal outcomes are achieved.
- Support reduction or cessation of substances in older people through partnerships with the media, patients and carers, health and social care providers in the NHS, independent and charitable sectors, NICE, Department of Health, BMA and the British Psychological Society.
- Improve the recognition and treatment of co-morbid mental disorders, physical disorders and substance misuse to improve health and social outcomes through liaison with medical, psychiatric and social care providers.
- Develop partnership working between old age and substance misuse services. Develop training supported by Royal Medical Colleges to ensure comprehensive assessment of substance misuse in all older people presenting to older people's mental health services and of alcohol misuse in memory clinics and dementia services.
- Improve case finding, assessment, re-assessment and review of substance misuse in older people across all health and social care settings by collaborative working arrangements and training which are supported by Royal Medical Colleges, allied health professionals and social care professionals.
- Ensure that pharmacological treatment is frequently monitored and should almost always be part of a treatment plan. This should be delivered by a multidisciplinary team versed in collaborative working developed by services responsible for the management of older people with substance misuse problems.

- Ensure that practitioners working with older substance misusers are knowledgeable about recent relevant findings and appropriately trained, supported, supervised by training opportunities developed by local, national or international service and training organisations.

Service delivery

- Ensure that all services are user-friendly and non-judgemental, flexible and consider the individual needs of older people at all points of the treatment journey in conjunction with patient and carers groups with the Royal College of Psychiatrists.
- Improve access to and the availability of services – age should not be a bar to receiving high quality care for substance misuse and this can be achieved by forging closer links with commissioners and treatment providers.
- Ensure collaboration, communication and cooperation between health and social care professional teams, families and carers at all stages of treatment and recovery.
- Share best practice in existing care pathways for substance misuse within mental health services for older people and mental health treatment for older people within substance misuse services across NHS and third sector providers.
- Specify operational definition(s) of integrated care and models of care through closer collaboration with NHS improvement.
- Review existing addiction psychiatry services in terms of consideration given to the particular needs of older people in partnership with the Faculty of Addictions.
- Ensure “mainstreaming” of skills in the management of substance misuse and other innovative models of service delivery within mental health services for older people in partnership with the Faculty of Old Age Psychiatry.

Education, training and workforce development

- Improve public and professional awareness of the need for, and role of, specialist services for substance misuse by working with the media, patient and carer groups, medical schools, Royal Medical Colleges, the British Medical Association, British Geriatrics Society, British Psychological Society, Royal College of Nursing, pharmacists, British Association of Psychopharmacology, Society for the Study of Addiction.
- Train all staff across health and social care in case finding for older people with substance misuse by joint working with Royal Medical Colleges, Department of Health, British Psychological Society, Deaneries, health and social care providers.
- Substantially increase training numbers for addiction psychiatry, including those with skills in assessing and treating older people with substance misuse by working with the Department of Health and Deaneries.
- Increase the numbers of old age psychiatrists with skills in addiction psychiatry by a programme of postgraduate training developed by the Royal College of Psychiatrists.
- Expand the Royal College of Psychiatrists' role in providing expertise in training at all levels including continuing professional development for psychiatrists as well as geriatricians, general physicians, GPs and other health care professionals (e.g. nurses, social workers, allied health professionals and those working in the voluntary sector).

Research and development

- Encourage, support and fund research and research training into older people with substance misuse which can better inform policy decisions through working with the Research Councils, NIHR, NICE, Society for the Study of Addiction, British Medical Association, Department of Health and PHE (and the equivalent in Scotland, Wales and Northern Ireland).
- Encourage inclusion of older people in all qualitative, descriptive and analytical research studies about substance misuse including prevention, epidemiological and clinical interventions through patient and carer groups, NICE, the Research Councils, NIHR and addiction research charities and journals which focus on older people and/or substance misuse.

- Undertake rapid reviews on important research findings relevant to older people and disseminate to practitioners involved in care through NICE, DrugScience, Society of Study of Addiction, Public Health England, Alcohol Research UK and the International Society of Addiction Journal Editors (ISAJE).
- Encourage research on the economic impact of substance misuse in older people, including the health and social costs of misuse and cost effectiveness of treatment in collaboration with NICE, the Research Councils, NIHR and addiction research charities.

Ethical and legal aspects

- Emphasise the obligations of all health and social care professionals in considering ethical and legal aspects of care for older people with substance misuse through encouraging improved Continuing Professional Development within the NHS, social care and through joint working with the British Medical Association.
- Ensure planned reviews relevant to circumstances and context of the review to optimise the identification of capacity in older people with substance misuse.
- Encourage joint working with other teams and services in health and social care to assess capacity and proactively identify safeguarding concerns.

Introduction

Key messages

This report has harnessed the collective knowledge, skills and experience of health professionals and others with experience in the field of substance misuse.

It presents an up to date, evidence-based revision of *Our Invisible Addicts*, with reference to the following terms of reference:

- Portraying lived experience of substance misuse.
- Examining public health aspects.
- Emphasising the importance of comprehensive assessment.
- Highlighting the relevance of alcohol-related brain damage and physical complications.
- Detailing the nature, range and benefits of age-sensitive treatment approaches.
- Exploring best practice in service delivery and implementation.
- Developing education and training to improve workforce competencies.
- Suggesting future areas for research and development.
- Clarifying the role and relevance of ethical and legal aspects of care.

Background

Since the publication of *Our Invisible Addicts* in 2011 (Royal College of Psychiatrists, 2011), as a response to unexpected interest in the field and further developments, we have continued to progress our work in epidemiology, training and education, research and policy. This has been reinforced by the unparalleled rise in rates of substance misuse in “baby boomers”, who are all now aged over 50 (Rao & Roche, 2017).

We have published 'An Information Guide' to support practitioners (RCPsych 2015) and a book on Substance Misuse and Older People (Crome et al 2015) which collates up-to-date information internationally. We have also run annual courses at the Royal College of Psychiatrists, published in the scientific arena (Crome & Crome, 2018; Rao and Draper, 2018, Rao and Jones, 2018; Rao, 2018a; Rao, 2018b; Rao & Crome 2016; Rao et al, 2016; Rao, 2016, Crome et al, 2015a; Bhattia et al, 2015; Wadd & Rao, 2015; Crome et al, 2015b; Rao, 2014; Rao et al, 2014) and contributed extensively to media and press coverage of substance misuse in older people.

When we came to review the original report, so much had changed that although we could retain some elements of the original version, the structure and content required considerable and extensive revision.

We have produced this report that includes updated information on the epidemiology of substance use in older people; discussion of minimum unit pricing; detailed consideration of the ethical aspects of substance use in older people; alcohol-related brain damage; end of life care; medical prescribing of cannabis; educational and training needs in relation to workforce planning; collaboration of several multidisciplinary teams such as primary care, addiction psychiatry, geriatric medicine (because of the clinical complexity of this group); and research options and priorities.

Our working group represented professionals from a wide range of clinical specialities as well as a patient, who has provided thoughtful insights.

Terminology

The terms 'drug' or 'substance' will be used to cover substances that are licit (tobacco and alcohol) as well as illicit ones. The latter includes cannabinoids (tetrahydrocannabinol or THC and cannabidiol), central nervous system depressants such as opiates and opioids (e.g. heroin and methadone), stimulants (e.g. cocaine, crack cocaine, amphetamines and 3,4-methylenedioxymethamphetamine, known as MDMA or ecstasy), lysergic acid diethylamide (LSD), khat and magic mushrooms. These terms will also be used to describe 'street' use, use of prescribed medication such as benzodiazepines, opiate, opioid and gabapentinoid drugs used in a manner not indicated or intended by a medical practitioner, and similar use of over-the-counter preparations such as codeine-based products (e.g. cough medicines, decongestants). It also includes drugs bought over the internet and novel psychoactive substances.

Clinical experience and a growing literature base indicate that older people may use a combination of licit and illicit substances,

as well as prescribed and over-the-counter medications taken in accordance with medical practitioners' instructions. This so-called 'polypharmacy', 'polydrug misuse' or 'polydrug dependence' is a particular problem in older people who have comorbid physical and psychological problems. Patients may be offered, borrow or share out-of-date medications. They may also take foods and/or drugs and/or medications that interact with each other and they may store medications inappropriately.

With low mood, anxiety and/or poor memory, they may forget to report what they have taken, forget that they have taken it at all and/or take more than has been prescribed. With the growing complexity of the range of substances available by a number of routes or means, this becomes a major risk faced by all teams working within mental health, acute and primary care settings (Crome & Rao, 2018).

Changing our attitudes to older people with substance misuse should not simply mean changing terminology as a "veneer" (Hamilton, 2018). Having the right words must also mean having the right values (Gallinger, 2015).

In this report, we have consistently aimed to use terms acceptable to patients and professionals with whom we have consulted. For example, the term "older people" is used in preference to "elderly" or "geriatric". If we have used words that could sometimes be construed as inaccurate or conveying a different meaning, it is hoped that the right values can still be discerned.

Both the public and professionals encountering and caring for older people require a deeper understanding of how and why an older person came to change their substance use to misuse. This will involve empathic reflection leading to attitudinal change that realises the capacity for a path to recovery. The journey may be long and so requires an approach that is patient, persistent and proactive. It is a journey that, if successful, will mean better engagement, assessment, treatment and above all, a better quality of life.

It is with these thoughts and reflections in mind that we begin our report with the first chapter by a patient.

Notes and thoughts from a patient

Key messages

- Public campaigning should be expanded to reduce the stigma associated with alcohol problems.
- There should be greater recognition of the enormity of the problem – detailed research and publication of statistics should be widely marketed.
- Early identification of the problem should be keenly promoted by training of general practitioners.
- There should be provision of more alcohol treatment centres generally including those specifically for older people.
- There should be a substantial increase in provision of aftercare services.
- More health professionals (including old age psychiatrists) should be trained to deal specifically with alcohol problems, and there should be more addiction psychiatrists.
- Education at all levels should be developed.
- The economic impact of alcohol should be determined by detailed research and publication of how it affects the economy, what revenues and what expenses are affected and by how much.

Overcoming denial

I'm Diane, a recovering alcoholic and patient. If it hadn't been for NHS service provision and its help in battling my alcohol problems, I wouldn't be alive writing this today.

Let me briefly tell you what happened to me. I'm now in a relatively good place but only after a very difficult time.

My drinking started innocuously enough but slowly and invidiously took hold and eventually became all-important – the only thing that mattered. At the beginning it was fine – I drank for social reasons and for business entertaining, with alcohol facilitating those sometimes difficult meetings. As time went on, alcohol steadily increased in importance and began to take its grip. A succession of mild medical conditions arose, such as skin disorders, memory loss, some trembling and various accidents. I went to see my GP for all of these conditions separately and at some point she asked me how much I drank. I lied, reducing the amount by half (or more). My physical problems increased and by then my GP was regularly asking about my alcohol intake.

Losing control

One day I had had enough of denial and acknowledged that perhaps alcohol could be a factor. Here, I should say that I was lucky that I always saw the same GP in the practice where I was a regular patient. She identified a pattern in the various conditions that I went to see her about and correctly deduced that alcohol was a fundamental issue. When I agreed that my alcohol consumption was probably too much, she quickly referred me to an alcohol treatment centre. Once there, I was initially questioned about my drinking, and for the first time I didn't lie about how much I drank. I was assigned a key-worker whom I saw on a weekly basis – part of an excellent team with the lead clinician being an addiction psychiatrist. When asked what my goal was, I replied 'controlled drinking'. The lead clinician told me that in his view that wouldn't be possible, given the amount I drank and the length of time I had been drinking. But I

insisted on controlled drinking (you can't force a patient to do what they don't want to do) and after six months of being treated by the centre I got my drinking down to a very reasonable amount and, against advice, discharged myself. Big mistake. My controlled drinking lasted for about three months and then I was back to my old drinking ways but much, much worse than before. I shall gloss over the next several alcohol-fuelled years which were not my finest and included my sleeping in the street because I couldn't get my key in the door and being hospitalised at various times. In short, I became a different person and a stranger to my family and friends.

Back in treatment

It took me five long years to go back to my (now different) GP and beg for help. She immediately referred me to the same alcohol treatment centre where, unbelievably, there was mostly the same team that I had seen before including the lead clinician. I knew then that for me there was no alternative but to detox as by that point my drinking had become totally unmanageable. Again, the team to which I was assigned was excellent and the lead clinician – the addiction psychiatrist – in particular knew 'which buttons to press' to convince, help and motivate me through the process. We were now agreed that I should detox but my final battle was to insist that I did this at home and not in-house. The detox wasn't easy by any means, but I managed it and thereafter attended a relapse prevention course at the treatment centre.

Following that I then started attending a supervised monthly aftercare session at the centre with other patients. That was incredibly useful and supportive as we could all talk about our lives and, with the help of a trained facilitator, try to resolve any problems. Having grabbed this opportunity with both hands, I was really upset when the centre had to close, having lost its bid for funding. I managed to find another centre which ran supervised monthly aftercare sessions, but this too subsequently closed down for funding reasons. It was at this point very difficult to find support, but eventually I located another centre which treated both alcohol

and drugs together. Personally, I don't think that these two substances should be treated together, but it was better than nothing at all, and it was good to have monthly meetings once more with people who were in recovery and needed support as I did. Anyway, that centre also closed. It's a pity that aftercare no longer seems to be available. I really don't understand it as it does help and if a person relapses and goes back to square one, the costs involved are surely far greater than the costs for providing aftercare.

Reflections

Through my experiences I have learned several things. Probably the most important aspect is the **early identification of an alcohol problem** and this would usually start at the GP's surgery (or from a home visit if they still happen). It would be good if GPs could automatically ask a few questions about their patients' drinking habits without it being seen as intrusive. Perhaps a process could be devised for facilitating this, with guidance on how to ask the questions or how to draw out the patient. Incentive payments for GPs to implement the process regularly could then be considered. Certainly, seeing my GP was the first step in my seeking help for an alcohol problem, although I did not initially visit her with that specifically in mind. Had she asked me questions sooner than she did, I might have gone to the alcohol treatment centre earlier and things would not have got to the awful stage they did. It's obviously important that GPs refer to their notes of previous visits, particularly if the patient does not see the same GP all of the time. My GP did refer to the notes and so was able to understand that alcohol was the common thread that linked all of the symptoms. Again, perhaps this could be part of the above process.

Equally important is the **provision of aftercare services**. Many people who have treatment to try to control their drinking, or detox and become abstinent, find it difficult to continue this without aftercare and support. I really think that aftercare is essential and should always be made available as long as the patient wants or needs it, but certainly for a number of months after changing their

drinking pattern. Again, I was lucky in that I could attend aftercare centres for support, although I had to really search for them as several were being closed down. Eventually there was none left to go to so that assistance disappeared. How much more difficult it must be at the moment for someone just embarking on recovery. In my opinion, the provision of aftercare services is not only essential – it also makes economic sense. Treating alcoholism is a huge drain on the NHS services, so preventing relapse means that the person will no longer require treatment for the various conditions arising from alcohol abuse.

In the same vein, I was lucky to be referred to an excellent alcohol treatment centre with its sympathetic and firm but supportive staff. **Where are all the alcohol treatment centres now?** Have a lot of them been put together with drug clinics (which I don't think works nearly as well)? There is certainly the need for them. It's probably even more difficult if you live outside a big city. Again, apart from adding to a huge problem of alcohol abuse, this also makes economic sense.

Stigma plays a part too. In fact, it may be why you don't want to tell people about your alcohol problem. This has to be addressed if early identification and treatment is to be achieved. To give just one example, at a conference about addictions I was talking to someone who worked at a hospital. After 10 minutes' friendly conversation, he asked me where I worked. I replied that I was a patient and with that he was silent for a minute or two and then abruptly turned away and started talking to someone else. I felt humiliated. Had I changed because I was now known to be a patient? Did he not know what to say? Was the answer so unexpected? You can see that this attitude must change, even if this particular incident was down to an individual's character. Having alcohol problems or being addicted to alcohol can happen to anyone. No one knows (and I certainly don't) why some people become addicted, but it certainly shouldn't lead to stigma.

Some do's and don'ts

I mentioned that the lead clinician was an addiction psychiatrist and that he, more than anyone, got through to me to a point where I wanted to be helped. I think it's good if I tell you things that I liked about his interaction with me as it may apply, in my opinion, to anyone who is in a one-to-one treatment session. Here are, in my view, are a few personal do's and don'ts when interviewing a patient:

- Listen to what the person has to say. Make them feel they are important, what they say is important and that they are being heard.
- Use your skills to sum up your patient. All patients need handling differently and some can take, or may need, a tougher line than others.
- Help the person to restore their self-image. Point out what they have to offer.
- Remain professional however emotional the case may make you feel. But remain human and approachable.
- Remember how vulnerable your patient is. Their outward show of strength, or aggression even, may hide what's inside.
- Remember that however many meetings you may have, whatever time of day it is, this one is the patient's special appointment and is hugely important to them. They have probably been psyching themselves up for this meeting with you.
- Never try and force a patient to do what they don't want to do – it will end in tears and you'll be back at square one.

I'm sure there are many more points to mention, but those above will do for a start.

Final thoughts

I do recognise that there are ethical dilemmas when treating people with alcohol problems. With the NHS in a funding crisis, should expensive medical treatment be given to someone who chooses to drink too much? Personally, I do think treatment should be given – I don't know how I ended up being addicted to alcohol – when it migrated from being a sociable, fun and enjoyable activity (even becoming my friend) into something that I couldn't control and which caused much harm not only to me but also to my family and to those with whom I interacted. As I have said before, on a purely economic front, the money spent on my treatment and aftercare is much less than it would have cost to address the future medical problems and hospital treatments caused by excessive alcohol intake. Consider also the money spent on policing public areas frequented by excessive drinkers and the clean-up required afterwards.

What about advertising? Is it right to actively market a substance that causes harm? Should advertisements link enviable lifestyles to the consumption of alcohol? Does this mean that the vulnerable are being targeted? Or is it right because it can be rationalised to people having freedom of choice to consume alcohol? The same discussion was had several years ago regarding tobacco and advertising was stopped. Perhaps alcohol advertising should also be stopped. Perhaps the packaging for alcohol should carry health warnings in a similarly dramatic manner as that of tobacco and not carry a much softer warning?

Another ethical dilemma is that of organ transplant. Should, for example, a new liver be given to someone who has destroyed their own liver through excessive alcohol use? I don't have the answer – one does what one thinks is right based on all sorts of factors.

I've said earlier how important education is in both understanding how alcohol can have effects on people and in understanding the effects it creates. Patients and their families experience this at first hand and so are well-positioned to pass on the knowledge they have of everyday living with the problems. This makes it extremely desirable

for them to participate in the construction of educational programmes and the establishment of policies in the field of alcohol addiction. They have real-life experience.

The importance of families

We also need to find a way of involving of family members more. I don't feel that enough research has been undertaken on how families (the whole family) are affected by living with someone who has an alcohol problem and how their lives are changed. Alcohol abuse tears families apart, ruins relationships, and establishes long-term psychological effects on family members. Indeed, many relationships simply do not survive and many children grow up to have significant issues in later life. My alcohol problem certainly caused issues in my relationship with my husband who effectively became my carer whilst I was in the grip of addiction, but then his role completely changed when I became abstinent. I became my own person once again rather than someone who had to be constantly looked after. It created a great deal of friction and difficulty and we were lucky to have been able to adjust and survive. It's also important to understand that the carer in the family will probably not have the opportunity to deal with their own life problems as their energy and focus will be on the person with alcohol problems.

From the above, it becomes clear that when deciding policies and designing services, involvement of patients and family members would be of immense value – from the establishment of the policy/service through its process and then through to final acceptance.

Last but not least

In conclusion, let me say that I have tried to show what it means to be someone with an alcohol problem. From initial denial, through to grudging acceptance, seeking help, and facing up to the issue. It wasn't easy but I'm so glad that I did it. When I look back now I find it distressing that I couldn't use my mind. Indeed, I didn't want to use it – it was just a waste of drinking time. One of the most gratifying aspects of being sober is that I can now enjoy using my mind again rather than squinting at life through a heavy veil. In fact, I would go so far as to say that having my mind back, thinking clearly, is the aspect that I cherish the most.

Not everyone is the same, of course, and many people may have alcohol problems of different severity (either less or more) than mine. While services that help are available, there are not nearly enough of them and they are difficult to find, in particular aftercare services. Just as important is the early identification of issues which can only be addressed by more and better education combined with active campaigning to show the extent of the problem and how it can be addressed.

Public health and substance misuse in older people

Key messages

- The proportion of older people with substance misuse continues to rise more rapidly than can be explained by the rise in the proportion of older people in the UK.
- The “baby boomer” population born between 1946-1964 (now aged between 53 and 71 years old) is at highest risk of rising substance misuse in the older population.
- The misuse of illicit drugs such as cannabis and amphetamines, prescription painkillers such as morphine and buprenorphine, as well as gabapentinoid drugs is now recognised as a growing public health problem.
- Substance misuse in older people is associated with reduced life expectancy and accelerated ageing, which is further compounded by socio-economic deprivation.
- Death rates in older people with substance misuse are higher than in the general older population.
- Deaths related to poisoning from substances in older people have more than doubled over the past decade.
- Recent revision of lower risk drinking guidelines for all age groups may still be too high for some older people, especially for those who have accompanying physical and mental disorders and who are receiving medication.
- Older people with mental disorders such as depression, anxiety, and personality disorder have higher rates of substance misuse than those without mental disorders.
- Psychosocial factors such as social isolation, financial problems, retirement, life events, pain and insomnia have strong associations with alcohol misuse.

- There is strong evidence for the potential effectiveness of minimum pricing in reducing alcohol-related harm, particularly in people with both harmful alcohol use and socio-economic deprivation.
- Awareness of alcohol units among older people is improving but there is a general lack of health awareness around lower risk drinking limits among the public. This also includes practitioners assessing older people with alcohol misuse.
- There is a large gap in evidence for both the prevention of alcohol misuse in older people and evidence assessing the impact of public health interventions to reduce cognitive decline or preventing dementia.
- Prevention of alcohol misuse needs to be balanced carefully against the role played by alcohol in maintaining social cohesion among older people.

Introduction

Since the publication of *Our Invisible Addicts* in 2011, the rise of substance misuse in the cohort of baby boomers born between 1946 and 1964 has remained a significant public health problem (Rao et al, 2015). In terms of the percentage of years of life lost to disability in England, alcohol rose from 16th to the fifth highest risk factor in people aged 50 to 69 between 1990 and 2013. Smoking remains the top risk factor in this age group (Institute of Health Metrics and Evaluation, 2015).

The prevalence of substance misuse in England (11.2%) is one of the highest in Europe (Andreas et al, 2017), with the burden of disease attributable to substance misuse influenced markedly by socioeconomic deprivation. Although this figure covers all substances, alcohol misuse accounts for the largest burden among older people in the UK. For people aged 50 to 69 in the most deprived quintile of England, tobacco smoking confers the largest burden, accounting for 20% of the risk. Alcohol and drug use ranks fifth, accounting for 7.1% of the risk. For the least deprived quintile, raised body mass index accounts for the highest proportion of the disease burden, with tobacco accounting for 11% of the risk. Alcohol and drug use ranks sixth at 4.6% of the risk (Institute of Health Metrics and Evaluation, 2015).

In Europe and the UK, the number of people over 65 needing treatment for substance misuse is expected to more than double between 2001 and 2020 (Gossop and Moos, 2008; European Monitoring Centre for Drugs and Drug Addiction, 2010).

In the United States, it is expected to treble (Colliver et al, 2006; Han et al, 2009). Given that the proportion of the population aged 65 or above in Europe is projected to rise to 1 in 4 of the population by 2050 (European Monitoring Centre for Drugs and Drug Addiction, 2008), the inevitable rise in older people with substance misuse has considerable implications for public health.

Clinical services in Europe define older people as being 65 and over. However, for illicit drugs, a lower cut-off point of 40 years of age has been considered as more valid in defining older people. It is known that substance misuse involving opioid drugs such as heroin can increase cardiovascular risk and accelerate premature ageing (Beynon, 2009). Adverse psychosocial factors add to this risk (Bachi et al, 2017). Taken together with the baby boomer cohort being a population at increasing risk of substance misuse, in this report “older people” will be defined as those aged 50 and over.

Trends in substance misuse among older people

Alcohol

Over the past 10 years in the UK, people aged 65 and over have shown a 20% increase in the proportion exceeding recommended drinking limits on any one day over the previous week (Office of National Statistics, 2017a). The 55-74 age group is the only one in which the percentage of people drinking lower risk limits has increased over the past 5 years (NHS Digital, 2017a). Between 2016 and 2017, people aged 65 and over formed 30% of hospital admissions in England related primarily to alcohol (Public Health England, 2018). This proportion has risen by more than 100% when compared to admissions between 2010 and 2011, when this age group formed 14% of these admissions (Office of National Statistics, 2012). Over the same timeframe, the proportion of alcohol-related admissions in the 16–44 age group fell by 20%.

Tobacco

11% of men and 10% of women aged 60 and over smoke tobacco (NHS Digital, 2017a). Unlike alcohol misuse, smoking rates have decreased by 15% in both men and women over the past 10 years. However, use of e-cigarettes among 50-59-year-olds increased 30% (from 5 to 6.5%) between 2015 and 2016, compared with a 9 per cent rise (from 6.5 to 7.1%) in the 35-49 age group (Office of National Statistics, 2017b).

Illicit Drugs

Lifetime use of illicit drugs in older people has increased sharply over the past 15 years.

Lifetime use	2000		2014	
	55–64	65–74	55–64	65–74
Cannabis	8.5%	0.9%	19.5%	6.8%
Amphetamines	1.7%	0.4%	2.8%	0.8%

In the United States, cannabis misuse in people aged 65 and over the previous 12 months rose from 0.15% in 2003 to a high of 2.04% in 2014 (Salas-Wright, 2017).

Between 2016 and 2017, people aged 65 and over formed 8% of hospital admissions in England related primarily to poisoning by illicit drugs (NHS Digital, 2018). This proportion has risen by 33% when compared to admissions between 2010 and 2011, when this age group formed 6% of these admissions (Office of National Statistics, 2012). Over the same timeframe, the proportion of such admissions in the 16–44 age group fell by 6%.

Prescription Drugs

With increasing longevity, misuse of prescription medication in older people is another growing problem in older people (Maxwell, 2015; Dhalla et al, 2011). This refers to inappropriate prescribing in dose, duration or clinical indication. Such inappropriate prescribing occurs in up to 20% of older people, with opioids and benzodiazepines being the most common drugs of misuse (Gottlieb, 2004; De Wilde et al, 2007).

Mortality from substance misuse

People with dual diagnosis have higher mortality rates than the general population matched for age, race and gender (Moos et al, 1994). For those aged 65 and over, it is still two times higher than the general population (Chang et al, 2010). This also applies to substance misuse accompanying psychotic disorders, where mortality rates are 2.5 times higher than the general population (Renninghaus 2015).

Tobacco

Tobacco smoking is associated with the highest number of premature deaths in the UK for any single substance, but this has decreased from 106,000 to 79,000 per annum deaths over the past 10 years (NHS Digital, 2017b).

Alcohol

In 2017, the relationship between alcohol and mortality in the UK was made more stringent in introducing a new classification of alcohol-specific deaths, where alcohol has a clearer association with cause of death. This continues to include mental and behavioural disorders from alcohol use (Office of National Statistics, 2017c).

The number of alcohol-specific deaths in people aged 50 and over has risen by 45% over the past 15 years (5,208 deaths in 2016, compared with 3,582 deaths in 2001). Over the same timeframe, the number of alcohol-specific deaths in people aged between 15 and 49 has remained the same (2,118 deaths in both 2001 and 2016).

An indication of how alcohol misuse in the baby boomer cohort has influenced alcohol-specific mortality is evidenced by the 60–64 age group having the highest rate of alcohol-specific deaths at 29 per 100,000 in 2015. In 2001, the highest alcohol-specific death rate was in the 50–54 age group, which was lower at 25 per 100,000. For the over 50s, the age group with the highest rise in the rate of alcohol specific deaths over the past 15 years is people aged 80 to 84, showing a 60% rise from 5.3 per 100,000 in 2001 to 8.5 per 100,000 in 2015.

Illicit and prescribed drugs

In England and Wales, the number of deaths related to poisoning from all drugs in people aged between 50 and 69 has increased by 122% over the past 10 years, compared with an increase of 22% in the 30–39 age group (Office for National Statistics, 2017d). For any opioid, this difference is even starker, with rises of 30% and 192% in the 30–39 and 50–69 age groups respectively over the same timeframe.

Although the differences between these age groups are less striking for poisoning from cocaine, amphetamines and benzodiazepines, there is still a comparatively higher rise in the 50–69 compared to the 30–39 age group (Office of National Statistics, 2017d).

These rises are mirrored by drug-related deaths in Scotland, where the average annual number of deaths in the 55-64 age group rose fivefold from 9 between 2002 and 2006 to 47 between 2012 and 2016. The corresponding figures for the 35 to 44 age group was an average annual increase of just over threefold from 104 to 327 during this time frame (National Records of Scotland, 2017e).

Prescription drug misuse

Older people receive the highest proportion of prescribed medication dispensed in the UK, with 10% of these likely to be inappropriately prescribed (De Wilde et al, 2007). Approximately a third of men and women aged 65 living independently take four or more prescribed medicines regularly (Falaschetti et al, 2002).

Inappropriate prescribing can be divided into overprescribing for a medication that is not clinically indicated and misprescribing a clinically-indicated medication (Schepesis and McCabe, 2016). The latter can be further divided into drug choice (more suitable alternatives available); dosage (too high for patient characteristics such as weight and renal function); duration of therapy (too long); duplication of drugs with the similar pharmacological profiles or a lack of consideration of interactions with other drugs used for the treatment of co-morbid disorders (Kaufmann et al, 2014).

The most commonly prescribed drugs with the potential for misuse are benzodiazepines (for insomnia and anxiety), “Z” drugs zaleplon, zolpidem and zopiclone (for insomnia) – so called because they share the same first letter, opioids (for pain) and gabapentinoids (for pain and anxiety). Older people may also use opioids for cough and diarrhoea. Long-term prescribing (more than 30 days) is more common for each type of Z drug in older patients than younger patients (Farias et al, 2017).

Opioid misuse

The most commonly prescribed opioids in primary care with the potential for misuse are buprenorphine, fentanyl, morphine and oxycodone (Zin, Chen, Knaggs, & Chen, 2014). Patients aged between 66 and 80 years are the most likely to receive an opioid prescription, followed by those aged 80 and older.

The number of opioids prescribed for all age groups has risen by 20% in England over the past 5 years (Health and Social Care Information

Centre, 2017a). In Scotland, between 2000 and 2015, there was a 20% increase in prescribing for opioid drugs in older people (Hughes et al, 2016).

Past year rates of inappropriate prescribing for opioids and drugs for anxiety and insomnia have increased by between 40 and 50% over the past 10 years, with one study finding an increase of between 50 and 70% for older people (Schepesis and McCabe, 2016). The rise in inappropriate prescribing of opioids in older people is likely to be attributable to a combination of an increased risk of substance misuse in the baby boomer cohort and a lower threshold for prescribing opioids for pain in older people (Kuo et al, 2016).

Benzodiazepines

For benzodiazepines, the average age of people being prescribed these drugs is 66. In 2015, approximately 40% of benzodiazepine long-term prescribing was for people aged over 80. This compared to approximately 20% for people in their twenties and thirties (Farias et al, 2017).

The prescription of benzodiazepines has fallen over the past 20 years, but the percentage of people with benzodiazepine misuse in Europe is between 3% for younger and 17% for older people (Chatterjee et al, 2017). The risk of benzodiazepine addiction is more likely to occur in women and people with low income, chronic pain, difficulty with everyday activities, social isolation and anxiety (Chatterjee et al, 2017).

Gabapentinoids

There is now also growing evidence for increasing rates of inappropriate prescribing of gabapentinoid drugs (pregabalin and gabapentin). In 2014, there were nine million prescriptions for gabapentinoids (Stannard, 2016). Most of these were prescribed for their licenced use in the alleviation of anxiety and for treating pain. Pain has been under-recognised in older people, so some increase may be due to increased treatment of genuine pain.

The number of prescriptions for pregabalin for all age groups has risen by 132% in England over the past 5 years (Health and Social Care Information Centre, 2017b). The number of deaths involving gabapentinoids has increased from less than one a year before 2009 to 137 in 2015; with 79% of these deaths also involving the accompanying misuse of opioids (Lyndon et al, 2017). Pregabalin is also the second most expensive drug to manufacture among all drugs prescribed in the NHS (NHS Digital, 2017c).

In the United States, pregabalin is a controlled drug. In the UK, it is licensed for the treatment of generalised anxiety disorder. Some 6.6% of the total reported adverse drug reports of misuse, abuse or dependence are associated with this drug, with a fivefold increase in the number of these reports since 2010 in developed countries (Chiappini et al, 2016). Vigilance is needed when co-prescribing pregabalin with opioid drugs, with an increased risk of drowsiness, sedation, respiratory failure. Consequently, Public Health England and NHS England (NHS England, 2014) jointly highlighted its potential for misuse. The Advisory Council on the Misuse of Drugs has called for the drug to re-classified as a controlled drug (AMCD, 2016). Although there is no data available on the misuse of gabapentinoid drugs in older people in the UK, this is an area that requires increased vigilance over the coming years.

Psychiatric and physical comorbidity

The prevalence of dual diagnosis (mental disorders in older people that co-exist with substance misuse) ranges from 21% to 66%, with higher rates seen across in-patient settings (Bartels et al, 2006). In older people, Depression and cognitive impairment are the most common types of mental disorder in dual diagnosis, with the latter mostly referring to alcohol-related brain damage.

Depression has a strong association with alcohol misuse (Atkinson 2002, Brennan et al, 2016). Older adults with depression are three to four times more likely to have alcohol-related problems than those without (Devanand, 2002), with higher risk of suicide and social/functional impairment (Davis et al, 2008). Depression is also associated with a higher risk of past year cannabis and cocaine use in people aged 50 and over (Blazer and Wu, 2009). Although most older people aged 65 and over in the UK are aware of the physical effects of drinking alcohol and have discussed their drinking with a health professional, this age group is least aware of the association between alcohol and depression (Office of National Statistics, 2010).

Alcohol misuse in people aged 60 and over is also associated with anxiety, antisocial personality disorder and post-traumatic stress disorder (Sacco et al, 2009; Pietrzak et al, 2012; Chou et al, 2011; Bolton et al, 2009).

Heroin and methadone users aged 50 and over have considerable accompanying physical co-morbidity ranging from 11% for diabetes mellitus to 54% for hypertension. Other co-morbid disorders within this prevalence range associated with substance misuse include arthritis, cirrhosis, hepatitis C, lung disease and cardiac disease (Rosen et al,

2011). With the ageing of heroin users, the numbers of older people with comorbid physical disorders such as lung and heart disease, and hepatitis are likely to increase (European Monitoring Centre for Drugs and Drug Addiction, 2010), adding to the public health burden.

Substance misuse and suicide

Alcohol reduces anxiety and inhibitions, as well as increasing impulsivity. Alcohol use disorders are at least five times more likely in older people with attempted suicide compared with the general population (Morin et al, 2013). During 2016, there were 5965 suicides in the UK, 2477 (42%) of which were in the 50 and over age group. In this age group, the highest suicide rate was in the 50–54 and the 90 and over age bands (Office for National Statistics 2017f).

The relationship 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), but there are risk factors common to all age groups that need to be taken into consideration for those at risk of suicide. These often cluster together in risk profiles and they include male gender, family history of psychiatric disorder, previous attempted suicide, more severe depression, hopelessness and comorbid anxiety and alcohol misuse (Hawton 2013).

Premature ageing and mortality

Substance misuse is associated with damage to individual organs at a cellular level as well as with systemic toxicity (Shalev et al, 2013). This biological ageing may lead to premature vascular damage and neuronal toxicity that further compounds chronological ageing. In baby boomers, substance misuse is also associated with high rates of unprotected sex or intravenous drug use that increase exposure to infections (Kott, 2011). Low socio-economic status may compound the above processes through limited use of health services, lack of sleep, insufficient exercise, and poor nutrition (Jancovic et al, 2014).

Substance misuse reduces life expectancy by between 9 and 24 years for illicit drugs and alcohol (Chang et al, 2010). For tobacco smoking, the reduction is between 8 and 10 years (Chesney et al, 2014).

Risk factors for substance misuse in older people

There is comparatively more known about factors for alcohol misuse in older people, given that it is the most commonly used substance in older people.

Alcohol misuse

Although higher socio-economic status is known to be associated with higher average weekly alcohol consumption (Rao et al, 2015), the added burden of co-morbidity from physical and mental disorders in areas of high deprivation may explain why alcohol misuse contributes to poorer health outcomes in areas of higher socio-economic deprivation (Katikireddi et al, 2017).

Early versus late onset alcohol misuse

Up to a third of people aged 65 and over with alcohol misuse will have developed this after the age of 50 (Fink et al, 1996). Compared with younger people, people developing alcohol misuse for the first time after the age of 45 are less likely to have a family history of alcohol misuse, less likely to have a history of alcohol-related injuries or nicotine dependence and have a lower number of accompanying alcohol-related medical disorders (Wetterling et al, 2003). Older people aged 50 and over are also less likely to have a history of drink driving convictions (Mulford and Fitzgerald, 1992). Older people are as likely as younger people to have a history of mental disorder (Wetterling et al, 2003). However, psychosocial problems are more common in older people (Atkinson, 1994), and warrant closer attention.

Psychosocial risk factors for alcohol misuse

Not being in regular contact with other people through social interaction (Khan et al, 2006), having fewer responsibilities, experiencing bereavement, feelings of loneliness (Britton and Bell, 2015), increased financial strain (Shaw et al, 2011) and social isolation (Coyle and Dugan, 2012) are all risk factors for alcohol misuse. Homelessness also has a strong association with alcohol misuse in older people (Crane and Warness, 2012).

Retirement is a major life event for older people and is associated with an increased risk of alcohol misuse (Perreira and Sloane, 2001), particularly if not taken voluntarily (Henkens et al, 2008). The risk period for ongoing alcohol misuse may last for as many as 4 years. An accompanying lack of role is also independently associated with

alcohol misuse in older people (Kuerbis and Saccho, 2012; Bacharach et al, 2004). However, these findings have contrasted with others that have observed both increasing and decreasing drinking trajectories in the same cohort (Syse et al 2017, Bobo et al 2011, Bobo et al 2013).

A recent study with a follow-up period of between 4 and 12 years in Finland explored risky drinking (more than 24 units per week for men and more than 16 units for women) in older men and women. Risky drinking had positive associations with male sex, depression, smoking and working in an urban area (Halonen et al, 2017).

The misuse of alcohol in response to stress is more commonly seen in older women, who more commonly use alcohol to self-medicate (Carney et al, 2000). As well as a reaction to life events and stress, anxiety disorders carry with them a higher risk of alcohol misuse (Wolitsky-Taylor et al, 2010).

Chronic pain has a consistent association with alcohol misuse in older people (Gilson et al, 2017) and a strong predictor of relapse (Witkiewitz et al, 2015), although this is not consistently associated with the extent of the pain (Brennan et al, 2011).

Insomnia is also known to be associated with alcohol misuse (Sproule et al, 1999). As many as 26% of older people use alcohol for medicinal purposes such as insomnia (Aira et al, 2008).

Reducing alcohol-related harm

Prevention of alcohol misuse in older people

The limited evidence from preventing the development of alcohol misuse in older people shows mixed results. However, personalised feedback of drinking has been shown to promote both healthy drinking behaviours and reduce harm from alcohol misuse (Lafortune et al, 2017). There have been no studies examining the impact of harm reduction or health promotion interventions aimed at preventing the onset of cognitive impairment or progression of dementia (Lafortune et al, 2017). This a key gap in the evidence base.

Changes to alcohol pricing

The affordability of alcohol in the UK has increased by 2% over the past 10 years, but alcohol is still 60% more affordable than it was in 1980 (Office of National Statistics, 2016). This may have had a bearing on spending by older people on alcohol, as alcohol has become more inexpensive as they have grown older.

As alcohol remains accessible, available and affordable for older people, there is a growing body of evidence accumulating for reducing alcohol-related harm at a population level through an increase in price. There are two distinct implications from introducing changes to alcohol pricing. The first reflects changes in spending for all drinkers incurred by any increase in alcohol price. The second is the overall benefit to society in reducing adverse alcohol-related health and social outcomes.

A study from Canada examining alcohol pricing and sales over 11 years found that a 10% increase in the minimum price of alcohol reduced consumption relative to other drink types by 16%. The greatest reduction was for drinks with comparatively higher alcohol by volume content such as cider, wine and spirits compared to beer (Stockwell et al, 2012).

Of the different options available to reduce harm through reduced affordability, minimum unit pricing is estimated to have the largest potential for reduction in alcohol-related deaths among the heaviest drinkers in lower socio-economic groups. This population is known to have the highest risk of alcohol-related harm (Meier et al, 2016).

In the UK, both Westminster and Scottish governments committed to minimum unit pricing (H.M Government, 2012; Scottish Government, 2012), but only the Scottish government that has finally ruled to pass this into law. It may be that the Westminster Government will now consider following the same implementation of minimum unit pricing, given that this has remained under consideration since 2012 (Home Office, 2013).

The decision to implement minimum unit pricing in Scotland was based on detailed modelling, which found that a minimum unit price of 50 pence would lead to a reduction in alcohol-related deaths and hospital admissions. It also found that annual spending in moderate drinkers (drinking no more than 21/14 units per week for men/women, according to previous drinking guidelines) would be largely unaffected, irrespective of socio-economic status. Among harmful drinkers (drinking more than 21/14 units per week for men/women, according to previous drinking guidelines), those defined as being in "poverty" (60% or below the average income) and at highest risk of alcohol-related harm would reduce their annual spending on alcohol by an average of £88 (Angus et al, 2016).

Similar outcomes from minimum unit pricing on reducing adverse health outcomes and reducing spending on alcohol in harmful drinking among people with lower income have been found in a study modelled for England (Holmes et al, 2014). However, there is scope for re-modelling the above studies according to current lower risk drinking guidelines and for lower guidelines that may more applicable to older people.

The potential benefits of minimum unit pricing also apply to older people. It is estimated that a 50 pence minimum unit price for England would lead to 49,000 fewer alcohol related illnesses 10 years after policy implementation.

Most of the harm reduction would arise in chronic disorders in people aged 45 years and older, especially for hypertension, but also for mental and behavioural disorders associated with alcohol (Purshouse et al, 2010).

In summary, there is compelling evidence that minimum unit pricing is effective in reducing alcohol-related harm in a way that has the greatest impact on heavy drinkers (including reduced spending on alcohol in people with low income who are drinking at harmful levels). There are also likely to be short and long-term economic savings on health and social care costs. There remains considerable scope for further modelling to explore the potential health and social care benefits of minimum unit pricing in older people.

Lower risk drinking limits for older people

There has been much speculation over the putative health benefits of alcohol on health. Interpreting causality between moderate drinking in later life and benefits to health (particularly to cardiovascular and cerebrovascular function) remain unproven.

It is likely that the proposed health benefits or lack of harm from alcohol have been overstated when comparing groups with heavy to those with moderate drinking or who are abstinent. Many older people reduce alcohol consumption over their life course if their health declines, thereby introducing a group of more unhealthy non-drinkers or moderate drinkers. There may also be under-reporting of alcohol consumption in those in groups who may be drinking heavily.

Deaths from alcohol misuse may also lead to those who have survived their alcohol misuse being classified as healthy, when in fact they do not form a nationally representative sample of drinkers.

The overall impact may be a false positive finding of “health benefits” or “protection” in a target group of drinkers at increasing risk of alcohol-related physical harm (Stockwell et al, 2016; Naimi et al 2017).

For alcohol-related brain damage, there is similarly no consistent evidence for preventing cognitive decline through alcohol consumption. A large observational cohort study conducted over 30 years found that older people consuming an average of over 30 units of alcohol a

week were 6 times more likely to develop brain hippocampal atrophy compared with abstainers. Those drinking between 14 and 21 units per week had three times the risk. There was additionally no protective effect from light drinking (1-7 units/week) over abstinence (Topiwala et al, 2017).

Our Invisible Addicts (Royal College of Psychiatrists, 2011) recommended that 'at-risk' drinking for people aged 65 and over be defined as drinking no more than 11 units of alcohol per week and no more than 3 units per day for both men and women. Guidelines developed in the United States in 2005 (National Institutes of Health, 2015) advise no more than 7 "drinks" per week for people aged 65 and over.

As one US "drink" is equivalent to 14 grammes and one UK unit is equivalent to 8 grammes of alcohol, seven US drinks is equivalent to 12 UK units per week, or an average of 1.75 UK units per day.

Recognising that there is no safe limit that can be applied across all population groups, revised UK guidelines in 2016 replaced the term "safe" drinking with "lower risk drinking". The new guidelines considered the evidence-base for harm attributable to alcohol at a population level. Lower risk drinking in the UK now states an upper limit of no more than 14 units per week for both men and women (Department of Health, 2016).

A study across 7 European Countries (not including the UK) found that, for all age groups combined, a higher rate of mortality for drinkers occurred in men drinking above 2.5 UK units per day and women drinking above 1.25 UK units per day (Shield et al, 2017). This equates to 17.5 units for men and 8.75 units for women per week.

More recent evidence extracted from national data of alcohol consumption in the UK found no evidence of increased mortality for older women drinking an average of no more than 1.25 units of alcohol per day (Knott et al, 2015).

However, any perceived health "benefits" may be attributable to inappropriate selection of a reference group and weak adjustment for confounders.

The revised UK guidelines (DH 2016) may still need to be applied more cautiously to older people, who are likely to be more sensitive to alcohol-related harm through the effects of ageing, having more complex physical and mental health problems, a higher risk of interactions with prescribed and other medications and a higher likelihood of the cognitive impairment than younger people.

Given both the validity of assessing alcohol intake in older people using traditional rating scales and variable reliability of self-report, improving

the measurement of alcohol intake and gauging risks associated with alcohol use may be better served through measuring blood alcohol concentration (BAC) (Crome et al, 2012). This may give a more accurate picture of the precise relationship between blood BAC and alcohol-related harm.

Health awareness

Public awareness among older people in the UK of how alcohol is measured is changing. Between 1998 and 2009, the proportion of people who had heard of alcohol being measured in units increased by 26% (from 76% to 96%) in the 45–64 age group and by 60% (from 50% to 80%) in the 65 and over age group. This increase in awareness was most marked in women aged 65 and over, in which there was a 66% increase. The largest UK survey on drinking behaviour of 16,710 people aged 50 and over found that 82% were confident that they could calculate alcohol units and 59% were confident or very confident in their ability to keep track of these units. Some 91% were very confident or confident that they could reduce their alcohol use if required. However, only 26% could correctly identify recommended drinking limits (Holley-Moore and Beach, 2016).

Wine remains the most popular alcoholic drink in people aged 65 and over, being the main type of alcohol consumed in over 50% of this age group (Office of National Statistics, 2017a). Given that the average size of wine glasses continues to rise (Zupan et al, 2017), the lack of awareness of lower risk drinking limits in older people has implications for public education if progress is to be made in reducing alcohol-related harm in older people at a population level (Rao and Roche, 2017).

However, it should be acknowledged that alcohol use is closely linked to maintaining social function and routines. Interventions aimed at reducing alcohol-related harm, therefore, need to consider the role that alcohol plays in maintaining both social cohesion and identity (Kelly et al, 2018). This can only be achieved by a clearer understanding of the health risks associated with alcohol misuse from both clinical and public health perspectives.

Assessment of substance misuse

Key messages

- All older people should be screened for alcohol and tobacco misuse and should be asked about other substance use and misuse when presenting to clinical services.
- Older people misusing substances should be offered a full assessment of their substance misuse in mental health services and offered referral to specialist substance misuse services if required.
- There should be special consideration of older people's distinctive needs, with assessment considering the physical, psychological and social changes consequent on ageing.
- Assessment may need to be ongoing and frequently reviewed, and involve the collaboration of health and social care professionals, families and carers over the longer term.
- Major life events, presentation with physical and psychological symptomatology (particularly if unexplained), and inconsistencies or contradictions in the presentation, should prompt re-screening or assessment.
- Although applying the standard criteria for the diagnosis of dependence to older people may be useful, this must be undertaken thoughtfully as they may not always be applicable.

Introduction

A comprehensive assessment of substance use and misuse in older people is fundamental to optimal management. Indeed, it is the first stage of treatment but also requires appropriate knowledge, skills and attitudes that are central to developing a therapeutic relationship and longer-term engagement. Before starting this process, screening is first required. This is feasible within all health and social care settings if the relevant training is provided. Although both screening and assessment are carried out in addiction services, the provision of comprehensive assessment should also be possible within older people's mental health services.

In this section, we have provided an outline of the screening and assessment process, barriers to identification of substance misuse, diagnostic criteria for substance use disorders, limitations of such criteria in older people, and a framework for assessment. It can be extremely difficult to capture the relevant relationships between substance use, mental symptoms, physical problems and social dysfunction. We have drawn on the following material in constructing the information in this section:

- Royal College of Psychiatrists 2011 *Our Invisible Addicts* (RCPsych 2011).
- Royal College of Psychiatrists 2015 Substance misuse in older people: an information guide (RCPsych 2015).
- Crome IB Wu L Rao R Crome P (Eds) 2015 Substance use and older people Wiley Blackwell.
- Rao R Crome IB 2016 Assessment in the older patient in Eds Sullivan MA and Levin FR *Addiction in the Older Patient* Oxford University Press Oxford pp 173-209.
- Society for the Study of Addiction website.

Background

All healthcare staff need to be equipped to detect substance misuse. This may also include non-medical professionals such as social workers or care home staff, as well as liaison nurses within acute hospital settings.

It is important to adopt a non-judgemental and non-ageist approach, with respect for dignity, privacy and autonomy.

Fluency in the patient's first language will influence the validity of the assessment and may require an interpreter. The pacing of the interview needs to take into consideration factors such as seating comfort, sensory impairment, clouding of consciousness, level of comprehension, cognitive impairment, and privacy.

Assessors should be aware of underreporting of substance use through denial, stigma, lack of awareness or memory impairment. A slower pace is needed, with more than one assessment usually required.

The framework outlined in Figure A1.1, known as the “5 As”: Ask, assess, advise, assist, arrange (Raw et al 1998) is a useful guide to the phases involved in the assessment and treatment process. During all stages, the options should be “tailor-made” to the individual (US Department of Health and Human Sciences 2005).

To some extent, the decision as to what treatment is required will be determined by the setting to which the patient presents.

Screening and assessment are the first components of the process of effective management, i.e. to ask every patient about substance use. However, screening and assessment are not the same thing; they are different processes. Screening should be undertaken for all new patients and reviewed at regular intervals. Its main aim is to document use and misuse.

If screening identifies substance misuse, it will be appropriate to proceed to assessment, i.e. eliciting more detail. This will inform a diagnosis of substance abuse or dependence, which will, in turn, lead to the formulation of a treatment plan.

Screening and assessment of substance misuse in older people requires appropriate knowledge, skills and attitudes relevant to ageing and to the use and consequences of such substances misuse. There also needs to be consideration of atypical presentations, difficulties in applying conventional diagnostic tools for misuse and dependence, as well as greater emphasis on social and physical aspects of assessment compared with younger people.

Presentation to services

Substance use in older people often goes undetected. This may be because people are not routinely asked but also because health and social care professionals do not recognise symptoms or behaviours that may be indicative of substance use.

Patients experiencing “ups and downs”, those with inconsistencies and contradictions in the history and presentation, and particularly those who do well in hospital but poorly at home, are of concern and should alert practitioners. Common presentations in older people misusing substances may be the result of changes in behaviour and unexplained symptoms, and include the following:

- Changes in self-care, eating habits and sleep pattern
- Changes in mood, memory and concentration
- Changes in mobility, social activities and activities of daily living

- Changes in compliance with medication
- “Masking” by other disorders (e.g. depression, Parkinson’s Disease)
- Unexplained (e.g. vomiting) and persistent (e.g. pain) symptoms
- Convulsions
- Slurred speech
- Liver-function test abnormalities

It is therefore essential that all health and social care services working with older people screen for substance use and misuse.

Barriers

There may also be many barriers to assessment of substance misuse in older people (Table 2). Assessments may need to be multiple and frequent with the key objective of engaging the patient and their families and carers. There is often considerable embarrassment and ambivalence about admitting to substance use. There may also be a degree of discomfort in practitioners asking about it. For these reasons and those specified below, there should always be a high degree of clinical suspicion. Detection can be tricky due to complex pathology and atypical presentations. It should be noted that older people often do not get the treatment they deserve because of a reluctance to refer appropriately even if substance misuse is detected (O’Connell et al 2003).

Table 2: Barriers to identification of substance misuse in older people (Royal College of Psychiatrists, 2011)

Practitioner barriers	Individual barriers
<ul style="list-style-type: none"> • Ageist assumptions • Failure to recognise symptoms • Lack of knowledge about screening • Discomfort with topic • Lack of awareness of substance misuse in older people ('If you don't think about it, you won't see it') • Misuse traditionally considered to be rare in old age • Symptoms may mimic or be hidden by symptoms of physical illness • Unwillingness to ask • Absence of informants 	<ul style="list-style-type: none"> • Attempts at self-diagnosis • Symptoms attributed to ageing process or other illness • Many do not self-refer or seek treatment • Perceived stigma of the word 'addiction' • Reluctance of patients to report – shame, denial, desire to continue using, pessimism about recovery • Cognitive problems – substance-induced amnesia, underlying dementia • Unwillingness to disclose • Collusion of informant(s) • Screening

Screening

Screening should be carried out in a friendly manner and be sensitive to emotional, social and physical needs. Special note should be taken of recent life events. Screening may be achieved by interview, pencil and paper or electronic methods. It should involve questions about quantity and frequency of substance use, symptoms of misuse and dependence and indirect proxy questions such as the CAGE questionnaire. Screening instruments for substance misuse in older people are confined to those that identify alcohol misuse (Royal College of Psychiatrists, 2015).

The CAGE (Felt that you should **C**ut down; **A**nnoyed by others criticising your drinking; Felt **G**uilty about drinking; Had an **E**ye-opener/ felt the need to drink first thing in the morning to steady nerves or get rid of a hangover) questionnaire allows a rapid screen to detect the core features of alcohol dependence. However, it is relatively insensitive to harmful/hazardous drinking and does not distinguish between current and prior alcohol problems (Adams et al, 1996).

The Alcohol Use Disorders Identification Test (Table 3) is the most commonly used screening tool for alcohol misuse (Saunders et al, 1993). It comprises 10 questions that explore alcohol use over the past year. The total score indicates a drinking risk category – lower, increasing, higher or possible dependence. The AUDIT also serves as clinical decision tool as the score provides an indication of appropriate interventions. It can also be used as an outcome measure.

Several adaptations of the Alcohol Use Disorders Identification Test (AUDIT) tool have been validated in older populations (Roberts et al, 2005). These adaptations include the AUDIT-5, a five-item version of the full AUDIT (Piccinelli et al, 1997) and the AUDIT-C, which asks only the three 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 for both instruments, as well as for the full AUDIT.

The use of computers for screening in primary care for rapid identification of substance abuse in primary care settings is also suitable for psychiatrists. The DAPA-PC (Drug Abuse Problem Assessment for Primary Care) has been pioneered in the USA (Holtz et al 2011; Haskins et al 2017).

The Fagerstrom Test for assessment of nicotine dependence is also a rapid tool (Fagerstrom et al 1990).

Table 3 Alcohol Use Disorders Identification Test

AUDIT Score	Drinking category
0-7	Lower risk (0–4 for 65+ age group)
8-15	Hazardous/increasing risk
16-19	Harmful/higher risk
20+	Possible dependence

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. It addresses problems more commonly seen in older people, such as ‘drinking after a significant loss’ or ‘drinking to take your mind off your problems’.

Case study 1

Mrs AB is a 75-year-old retired teacher who was referred to a community mental health team for older adults. She had no previous contact with mental health services but had presented to her GP with several different problems over the past few years, such as tiredness, sleep disturbance and poor food intake. Mrs AB had not attended her annual health check for five years and any suggestion of blood tests has been refused. She had no family and no social contacts.

At assessment on a home visit, the flat was cluttered, and Mrs AB was dressed in clothes that did not appear clean. Her refrigerator was empty, as she said that she had been 'living off take-aways'.

On mental state examination, there was no evidence of cognitive impairment, but Mrs AB had a depressive disorder that was treated with antidepressants and she was allocated a care coordinator with whom she did not engage. She did not take her antidepressants and refused input from psychology, occupational therapy and social services. She was therefore discharged from mental health services, as she had mental capacity to refuse input.

Mrs AB was re-referred 12 months later, following the onset of memory problems, detected by her GP, having locked herself out of her flat at night. She said that she had "gone to buy something to drink" when the incident happened.

At interview, she was screened using the AUDIT and found to be in the higher risk category of alcohol misuse. Following a full assessment of her substance misuse, she reported drinking a quarter of a bottle of spirits a day since her retirement six years previously. She did not consider reporting her alcohol consumption when first seen, as she 'did not consider it to be a problem'. This case study highlights the importance of assessing substance misuse routinely – if Mrs AB had been asked about it initially, her alcohol misuse may have been detected at first presentation.

Assessment of substance misuse

The framework in Table 4 outlines a structured and systematic approach to assessment. Each substance of relevance should be covered separately. By assessing quantity, frequency and chronology of use and misuse, a clearer picture can be built of how mental health and health, as well as genetic, personality, early life, psychosexual and occupational factors have influenced substance misuse. This will also undoubtedly be precipitated, perpetuated and maintained by ongoing mental and physical health, social isolation, independence in activities of daily living, housing, finances and concerns over safeguarding and mental capacity.

The protocol will also need to be supplemented with information from collateral sources. This includes information from relatives, friends and informal carers (taking account of information sharing and confidentiality, GP consultations (including current prescribed medication), hospital discharge summaries, home carer reports, day centre reports, reports from housing officers/wardens of supported housing, criminal justice agencies and results from previous investigations such as psychometry and neuroimaging (The Royal College of Psychiatrists, 2015).

Far greater prominence needs to be given to social functioning and social networks in older people than in younger adults. In older people, there is comparatively less emphasis on forensic history and occupational history than in younger people. Social pressures such as debt, or even substance-using 'carers' or open drug dealing may impact on the older person's welfare. Vigilance about safeguarding is essential.

Functional ability also has greater relevance when assessing older people. This can be assessed using the Barthel Index which rates the ability to perform Activities of Daily Living (ADLs) (Wade & Collin 1988).

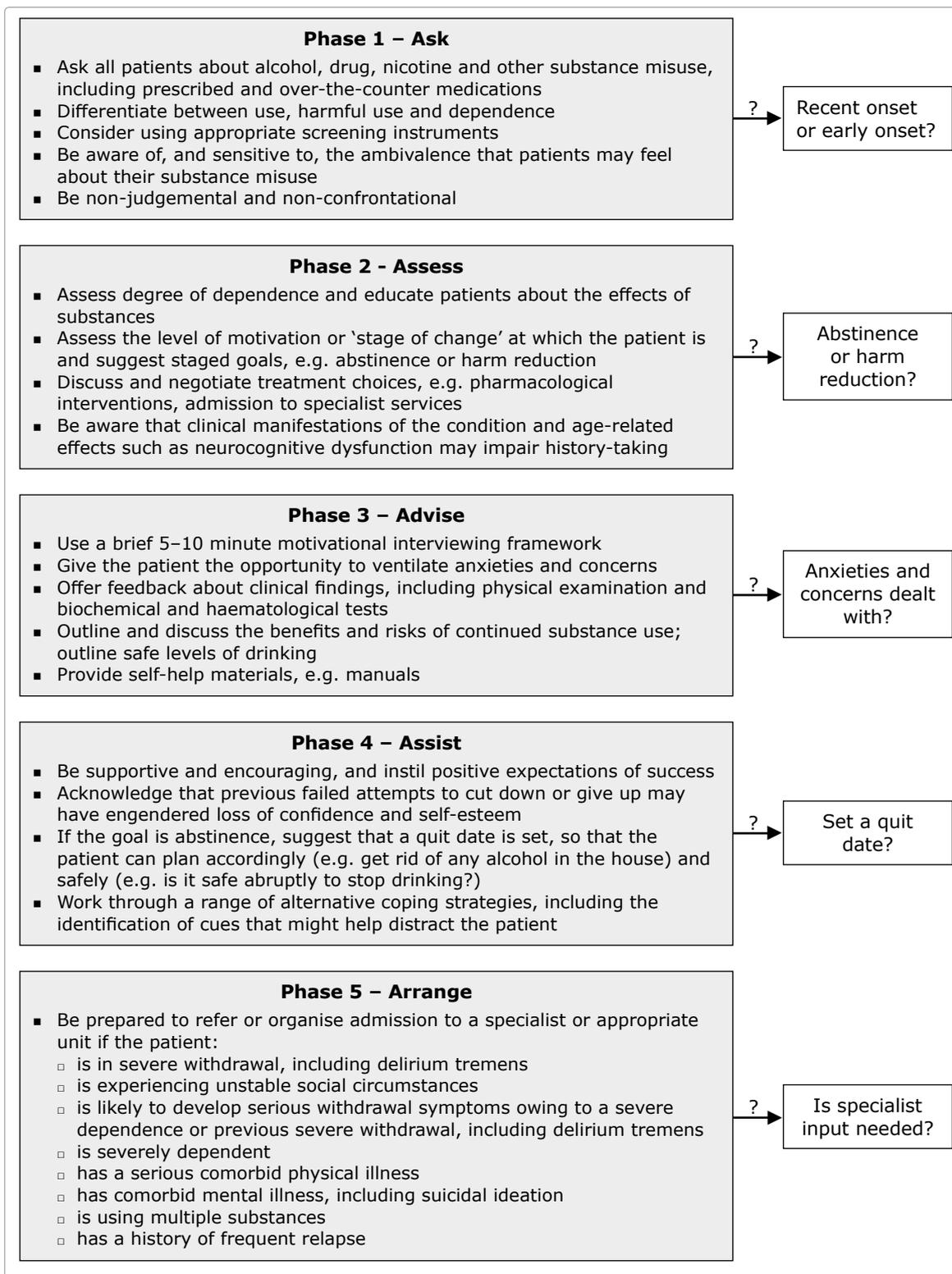


Fig. A1.1

A five-phase framework for assessing substance misuse in older patients (after Crome & Bloor 2006; adapted from Raw et al 1998).

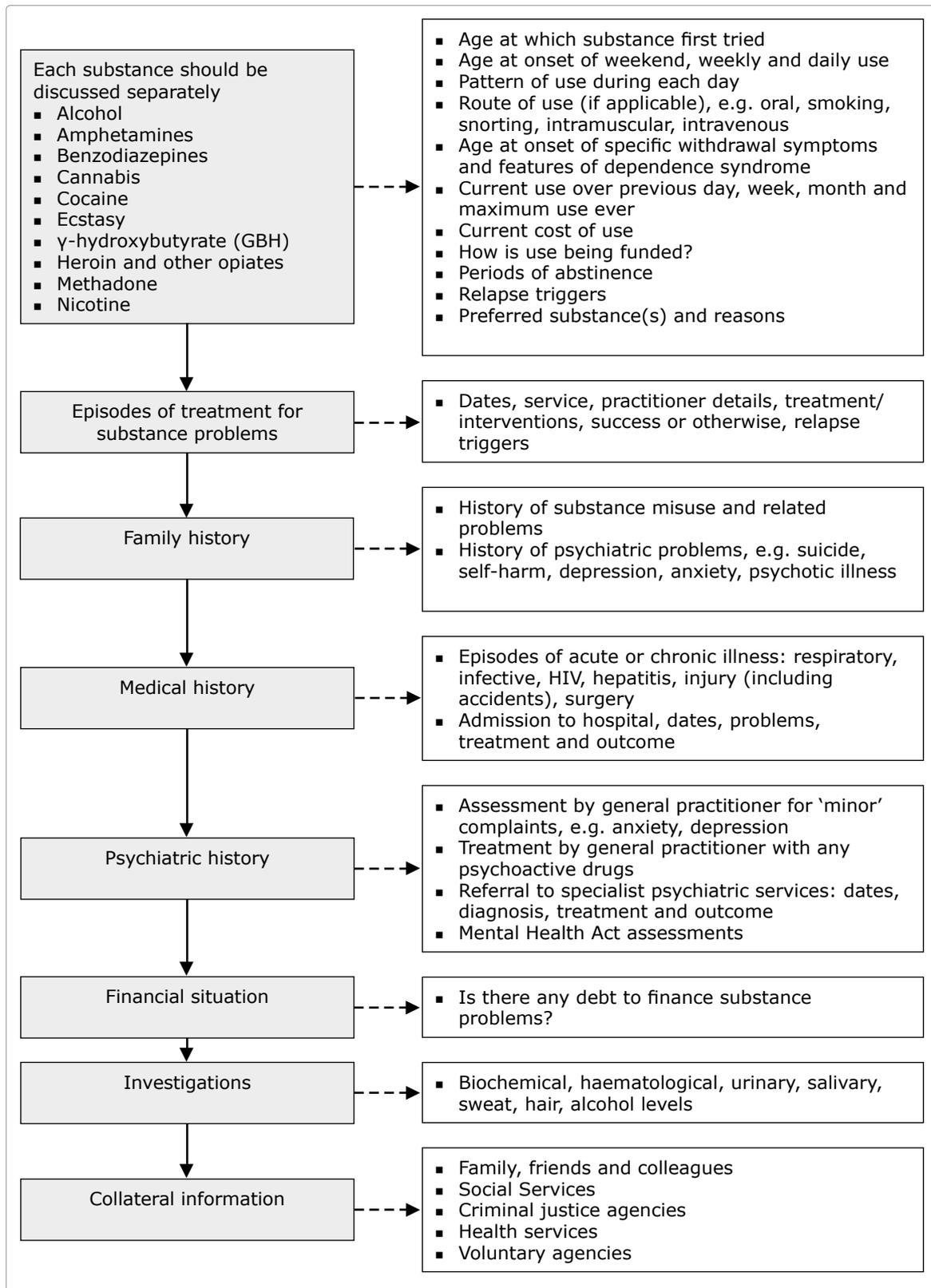


Fig. A1.2 Suggested outline for schedule of issues to be covered in assessment (after Crome & Bloor, 2006).

Table 4: Framework for assessment of substance use and misuse in older people

Area of questioning	Questions to ask
<p>Cover each of the following substances individually</p> <ul style="list-style-type: none"> • Alcohol • Amphetamines • Benzodiazepines • Cannabis • Cocaine • Ecstasy • Heroin and other opiates • Novel psychoactive substances • Methadone • Nicotine • Over the counter medication • Substances bought over the Internet • Prescribed medication • Solvents 	<ul style="list-style-type: none"> • Age of initiation: first tried each substance • Age of onset of weekend use • Age of onset of weekly use • Age of onset of daily use • Pattern of use during each day, i.e. quantity/weight, frequency • Route of use, e.g. oral, smoking, snorting, intramuscular, intravenous, subcutaneous (“skin popping”) • Age of onset of specific withdrawal symptoms and dependence syndrome features • Current use over previous day, week, month • Number of days of abstinence (reasons for this) • Current cost of use • Maximum use ever • How substance use is funded • Source of substances • Periods of abstinence • Triggers to relapse • Preferred substance(s) and reasons • If injecting, current injection sites, previous injection sites, any problems with these
<p>Treatment episodes for substance misuse</p>	<ul style="list-style-type: none"> • Dates, length of contact with service • Type of services, and what was provided/types of interventions • The outcome of each contact, what was achieved, did patient view it as successful or otherwise • Reason for discontinuing contact with the service • Triggers for relapse, reasons for contact with the service again
<p>Psychiatric history</p>	<ul style="list-style-type: none"> • Current signs and symptoms • Current diagnosis, medication • Assessment by GP for anxiety, depression, memory problems • Previous diagnosis of dementia • Treatment by GP with psychotropic drugs • Referral to specialist psychiatric services for assessment and treatment, dates, reasons, diagnosis, outcome (including in-patient admissions)
<p>Family history</p>	<ul style="list-style-type: none"> • Parents, siblings, grandparents, aunts, uncles, wife, husband, partner, children, grandchildren • History of substance misuse within the family members mentioned, and any related problems
<p>Personal History</p>	<ul style="list-style-type: none"> • Educational attainment • Separation, divorce, death • Family relationships, conflict, support • Occupational history • Whether childhood spent with biological parents or others

Table 4: Framework for assessment of substance use and misuse in older people

Area of questioning	Questions to ask
Social History	<ul style="list-style-type: none"> • Current living arrangements, e.g. home, hostel, care home and with whom • Cared for/carer • Permanent, temporary • Social network • Activities of daily living • Housing support needs • Benefits • Any areas of vulnerability • Typical day
Lifestyle issues	<ul style="list-style-type: none"> • General physical state • Sleep • Diet • Injecting practices including risk to others • Wound management • Oral health • Vaccination history • History of breast, cervical cancer, prostate screening • Sexual health issues
Medical history	<ul style="list-style-type: none"> • Current diagnosis, medications, treatment • Acute or ongoing disorders: respiratory, infective, HIV, tuberculosis, cardiovascular, hepatitis, injury, accidents, surgery, overdose • Any screening for blood-borne viruses (hepatitis B, C and HIV), dates and outcomes • Falls, pain, constipation, sensory impairment • Admission to hospital, dates, problems, treatment, length of admission and outcome • Current GP, care, condition(s), treatments
Psychiatric history	<ul style="list-style-type: none"> • Current diagnosis, medication • Anxiety, depression, memory problems • Previous diagnosis of dementia • Treatment by GP with psychotropic drugs • Referral to psychiatric services for assessment and treatment, dates, reasons, diagnosis, outcome (including in-patient admissions) • Any mental health act assessments
Criminal history	<ul style="list-style-type: none"> • Involvement in criminal activities, both related and non-related with substance use • Age at first contact with the criminal justice system and reasons • Cautions, charges, convictions • Types of activity, shoplifting, theft, prostitution • Imprisonment at any time • Any current issues
Social background/Personality	<ul style="list-style-type: none"> • Ethnicity and cultural background • Religious and spiritual beliefs • Coping styles/resilience

Table 4: Framework for assessment of substance use and misuse in older people

Area of questioning	Questions to ask
Financial status	<ul style="list-style-type: none"> • Mental capacity over finances • Debt • Arrangements for budgeting and expenses
Biological measures	<ul style="list-style-type: none"> • Biochemistry: alcohol levels, drug screens, liver function tests • Haematology • Virology
Psychological measures	<ul style="list-style-type: none"> • Brain MRI, liver ultrasound, endoscopy
Contact with other services (current and previous)	<ul style="list-style-type: none"> • Vulnerable adult • Safeguarding risk to children (as grandparent)
Risk factors	<ul style="list-style-type: none"> • Social/cultural isolation • Self-neglect • Recent losses • Carer stress • History of harm to self and others • Elder abuse
Further information	<ul style="list-style-type: none"> • Carers, family, friends, colleagues • Other service providers
Perspective of patient	<ul style="list-style-type: none"> • Perception of problems • Mental capacity of health care decisions • Motivation for change – strengths, barriers, support

(Adapted from: Crome and Ghodse, 2007 and Society for Study of Addiction website 2015)

Diagnosis

Two diagnostic systems are used to make a diagnosis of Substance Use Disorder, with either Harmful or Dependent Substance Use:

- DSM5: Diagnostic and Statistical Manual of the American Psychiatric Association (American Psychiatric Association, 2013). In DSM5, “dependence” and “abuse” diagnoses are combined into “substance use disorder.”
- ICD 10: International Classification of Diseases (WHO, 1992) classifies misuse as harmful use or dependence.

Box 1: ICD–10 diagnostic guidelines for the dependence syndrome (WHO, 1992)

A definite diagnosis of dependence should usually be made only if three or more of the following have been present together at some time during the previous year:

- (a) a strong desire or sense of compulsion to take the substance
- (b) difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use
- (c) a physiological withdrawal state when substance use has ceased or been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or a closely related) substance with the intention of relieving or avoiding withdrawal symptoms
- (d) evidence of tolerance, such that increased doses of the psychoactive substances are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol- and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users)
- (e) progressive neglect of alternative pleasures or interests because of psychoactive
- (f) substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects
- (g) persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.

Narrowing of the personal repertoire of patterns of psychoactive substance use has also been described as a characteristic feature (for example, a tendency to drink alcoholic drinks in the same way on weekdays and weekends, regardless of social constraints that determine appropriate drinking behaviour).

It is an essential characteristic of the dependence syndrome that either psychoactive substance taking or a desire to take a particular substance should be present; the subjective awareness of compulsion to use drugs is most commonly seen during attempts to stop or control substance use.

The above criteria were developed in a younger adult population and may not apply to older people. The limitations of DSM5 diagnostic criteria for Substance Use Disorder listed in Table 5.

It is important to attempt to establish a diagnosis of dependence or severe substance use disorder to understand the severity of the condition and as to whether to use pharmacological agents for withdrawal, substitution or maintenance. However, depending on circumstances, this judgement may have to be made with astute caution, and ideally by a team comprising an addiction specialist, a geriatrician and a specialist in old age psychiatry.

Table 5
DSM5 diagnostic criteria for Substance Use Disorder (SUD)
 The presence of at least 2 symptoms indicates a Substance Use Disorder (SUD). The severity of SUD is defined by Mild (the presence of 2–3 symptoms); Moderate (4–5 symptoms) or Severe (6 or more symptoms)

	Criterion	Limitations in older people
1	Substance taken in larger amounts or over a longer period that was intended	Cognitive impairment may interfere with self- monitoring
2	There is a persistent desire or unsuccessful efforts to cut down or control substance use	There may be reduced incentive to decrease harmful use, which includes fewer social pressures and fewer personal and family pressures secondary to ageism
3	A great of time is spent in activities necessary to obtain substances, or recover from effects	Negative effects may occur at relatively low levels of use
4 (New criterion in DSM5)	Craving or a strong desire or urge to use substances	Older people may not recognise the urges as cravings, or may attribute it to something else such as anxiety, depression or boredom
5	Recurrent substance use resulting in failure to fulfil major role obligations of work, school or home	The roles and expectations of older people and their families might have changed so that this is not acknowledged as a problem
6	Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by substance use	Older people deny or may not realise that the problems are associated with substance use
7	Important social occupational or recreational activities are given up or reduced due to substance use	Older people may have decreased activities due to physical and psychiatric comorbidities or 'slowing down' Social isolation and disabilities may make detection more difficult
8	Recurrent use in situations in which it is physically hazardous	Older people may deny or not realise that a situation that was once safe, has become physically hazardous
9	Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by substances	Older people may deny or not realise that these symptoms are substance related Practitioners may not attribute some or all problems as substance related
10	Tolerance	Older people may not develop dependence
11	Withdrawal	Even low intake may cause problems

(Adapted from Blow 1998)

Clinical examination

There are well-documented associations between the substance use, mental disorder and physical conditions. As a detailed description of the physical and mental disorders is beyond the scope of this report, a summary is provided below (Crome et al 2015; the Royal College of Psychiatrists 2015). Both mental state and physical examination support the diagnostic process and will influence further investigations and treatment (Royal College of Psychiatrists, 2015).

Mental state examination

There are key features of the mental state examination which are of great relevance to substance misuse include:

- **Delirium** associated with intoxication or withdrawal. Delirium tremens has a high morbidity and mortality and is treatable. It represents a medical emergency.
- **Wernicke's encephalopathy** may also present with, or be confused with, signs of delirium or intoxication and opportunities for treatment may be missed. The 'classic triad' of oculomotor abnormalities, cerebellar dysfunction and altered mental state only occur in 20%. However, 80% of patients present with an altered mental state of mental sluggishness, apathy, impaired awareness of an immediate situation, disorientation, poor attention, agitation and hallucinations.
- **Low mood and anxiety** may accompany the misuse of a range of substances, particularly depressant drugs such as alcohol, sedatives and hypnotics. It is not uncommon to find an atypical presentation of symptoms suggestive of a mood disorder. These include being 'masked' by cognitive impairment or 'somatised' by presenting as physical symptoms such as lack of energy.
- **Suicidal ideation:** Older people with depression are known to be at high risk of suicide when accompanied by alcohol misuse.
- **Psychotic symptoms** are associated with a variety of substances such as cannabinoids, stimulants and hallucinogens; withdrawal states accompanying alcohol and/or sedative/hypnotics are also associated with transient psychotic symptoms. Chronic use of stimulant and depressant drugs (e.g. alcohol) can manifest as psychosis.
- **Cognitive impairment** may arise from alcohol brain injury, alcohol-related traumatic brain injury, benzodiazepine use, stroke or chronic subdural haematoma. Cognitive impairment may be

assessed using the mini-mental state examination (MMSE) (Folstein et al 1975) and Addenbrookes Cognitive Examination (ACE) (Mioshi et al 2006).

Physical examination

The following list highlights some of the problems which should be considered on physical examination:

- Weight loss
- Self-care
- Gait and balance, e.g. tremor and festination, spastic hemiplegia, and use of walking aids
- Skin integrity: evidence of injury, e.g. ulceration, pressure damage
- Tar staining of the fingers and hair
- Stigmata of chronic liver disease: macronodular liver, liver tumour or ascites
- Psoriasis, skin carcinoma and porphyria cutanea tarda
- Superficial and deep vein thrombosis, ulceration and sinus formation
- Subacute bacterial endocarditis can arise from injecting drugs.
- Nail fold infarcts, splinter haemorrhages, Osler's nodes, Janeway lesions
- Macular rash, psoriasis and seborrheic dermatitis
- Gum disease and dental caries
- Chronic obstructive pulmonary disease (COPD)
- Hypertension and stroke
- Neurological manifestations of traumatic intracerebral bleeding, and Wernicke's encephalopathy
- Bony injury in acute intoxication
- Cerebellar syndrome and peripheral neuropathy.

Further investigations are almost always appropriate if patients are presenting with associated symptomatology. These may include urine or breath tests, blood alcohol levels, full blood count, mean corpuscular volume, urea and electrolytes, liver function tests, vitamin B12 and folate levels. More specialised investigations such as neuroimaging studies or screening for blood borne viruses may have to be undertaken.

Conclusion

As assessment constitutes the first stage of treatment, it is vitally important that the opportunity for further engagement, retention and intervention is secured through an empathic and non-confrontational tone and style at the first interview. The quality of the collaboration or coordination between the medical and social care teams, the patient and their families and carers at this point can be instrumental in determining the outcome by setting the scene for what might be a long-term therapeutic relationship. Appropriate utilisation of a structured framework, diagnostic criteria, and a systematic procedure for intervention, will aid interpretation of clinical presentations in substance-using older people and point practitioners in the right direction.

Alcohol-related brain damage and physical complications of substance misuse

Key messages

- Current services are poorly equipped in the assessment, treatment and care of older people with alcohol-related brain damage (ARBD).
- ARBD has a wide range of mechanisms involved in its development, with Wernicke-Korsakoff Syndrome and alcohol-related dementia being the most common clinical presentations
- Rising rates of hospital admissions for ARBD has implications for clinical service provision.
- Assessment, diagnosis, harm reduction and recovery require specialist skills and involves a joint approach between health and social care professionals, as well as families, carers and third sector providers.
- Reduction of, or abstinence from, harmful drinking may be associated with partial reversibility in cognitive function
- Long term care is not a substitute for appropriate rehabilitation
- Substance misuse is associated with a wide range of physical complications that require appropriate assessment, treatment and aftercare.

Introduction

Alcohol misuse is associated with over 200 mental and physical disorders (Stewart et al, 2017). As well as the health impact of acute and chronic liver disease, it is also associated with brain damage (including dementia); cancers of the mouth, throat and breast; and hypertension, heart disease and stroke (NHS Choices, 2016). Ageing is associated with a reduction in total body water and a resulting increase fat to water ratio. As alcohol is water-soluble and not fat-soluble, these changes mean that, for a given alcohol intake, the concentration of alcohol in the blood is higher in an older than in a younger people. It is therefore likely that physical complications can occur at lower levels of alcohol consumption in older people. However, abstinence from harmful drinking may be associated with partial reversibility in cognitive function.

Older people are also likely to experience both acute and chronic physical complications associated with other substance misuse, compounded by polypharmacy and age-related physical disorders. The route of administration is also central to the physical complications of substance misuse (e.g. smoking and lung cancer; intravenous drugs and blood borne viruses).

Alcohol-related brain damage

Alcohol is known to be associated with brain damage through a variety of mechanisms (Box 2). In older people with ARBD, there is also likely to be accompanying cerebrovascular disease with or without a history of stroke, cerebellar damage; as well as a history of traumatic head injury with or without a history of chronic subdural haematoma (The Royal College of Psychiatrists, 2014).

Box 2: Mechanisms of alcohol neurotoxicity (Kim et al, 2012)

- Direct toxicity (frontal and hippocampal damage)
- Malnutrition (Wernicke's encephalopathy/Korsakoff's syndrome)
- Metabolite toxicity
- Electrolyte imbalance
- Hepatic encephalopathy/infection
- Inflammatory (e.g. Tumour Necrosis Factor Alpha)
- Modifying factors (e.g. Apo E allele/elevated homocysteine)

Definition

The most common clinical presentations of ARBD are cognitive impairment in Wernicke-Korsakoff's Syndrome (WKS) and Alcohol-Related Dementia (ARD). The chronic effects from repeated episodes of Wernicke's encephalopathy (see under 'Mental state examination' in the *Assessment of substance misuse* chapter) result in Korsakoff's Syndrome (KS). KS presents with lasting impairment of recent memory, while short-term memory is preserved. In ARD, there is both impaired short-term memory and impairment in other areas of cognitive function.

Cognitive impairment should be distinguished from alcohol-related "blackouts" (Lee et al, 2009). The latter are acute episodes of memory loss for the events around any part of a drinking episode. They are associated with acute alcohol intoxication but without loss of consciousness. Although associated with poor transfer (encoding) of information from short to long-term memory and with alcohol dependence, blackouts are not known to be associated with long-term brain damage.

A diagnosis of probable ARD is made using the three diagnostic criteria shown in Box 3.

Box 3: Diagnosis of alcohol-related dementia (Oslin et al, 1998)

Evidence of cognitive impairment

Significant alcohol use defined by minimum average of 35 standard US drinks (>52 UK units) per week for men and 28 standard US drinks (>42 UK units) for women, for a period of greater than 5 years

The period of significant alcohol use must occur within three years of clinical onset of cognitive impairment

In ICD 10 (WHO, 1992), ARD is classified under "Residual and late-onset psychotic disorder" where alcohol has chronic effects on cognition, affect, personality, or behaviour. In DSM5 (American Psychiatric Association, 2013), there is no separate category of ARD, which is defined within "alcohol-induced neurocognitive disorder".

ICD10 and DSM 5 have categories defining WKS as "amnesic syndrome" and "alcohol-induced major neurocognitive disorder, amnesic confabulatory type" respectively.

Epidemiology and demography

In England, hospital admissions for WKS have increased by 26% in the 18–65 age group, but by 87% in the 65 and over age group over the past 3 years (NHS Digital, 2017).

Western Scotland has the highest prevalence of KS in Western Europe. ARBD discharges have been increasing in Lanarkshire at a significant rate (more than three times the Scottish average), with increases among males 40–60 years of age and among individuals from more affluent areas (McColl et al, 2010).

ARBD is commonly associated with homelessness, with a study from Glasgow finding that 82% of homeless people had cognitive impairment and 78% were drinking hazardously. Most of these people were over 50 years of age (Gilchrist & Morrison, 2005).

Rates of ARBD can depend on the setting, with facilities specialising in early identification and treatment of memory disorders reporting rates of 3% (McMurtray et al. 2006) and nursing homes reporting rates as high as 10% (Oslin and Cary 2003).

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 Liverpool area (Emmerson & Smith, 2015).

Neuro-imaging

Brain Magnetic Resonance Imaging (MRI) has shown significant shrinkage of the volume of mammillary bodies in patients with KS compared with healthy controls. MR Spectroscopy also supports this view, but also finding that ARD has the potential for some aspects of brain regeneration though white matter remyelination (Zahr and Pfefferbaum, 2017).

Cognitive impairment

ARD shows better performance on language tasks but poorer performance on visuospatial tasks compared with Alzheimer's disease (Ridley et al, 2012). Frontal lobe damage is particularly common in ARBD, which may explain the high rate of behavioural problems seen in ARD (Rao, 2016). Unlike other forms of dementia, there is partial reversibility of some people with ARD such as in white frontal white matter integrity, particularly for late onset alcohol misuse (Gazdzinski et al, 2005). Alcohol use disorders also frequently complicate primary dementia, increasing cognitive decline (Rao and Draper, 2015).

Prognosis

The prognosis of ARD is determined by the nature and extent of brain damage. There is scope for recovery in mild or moderate alcohol-related cognitive impairment, where abstinence can be associated with some reversibility of cognitive function. However, it is common for older people with a long history of alcohol misuse to have ARD superimposed on pre-existing WKS, together with other co-existing disorders such as stroke and traumatic brain injury.

Management

In management of ARBD, there is a limited role for drug treatment (Sachdeva et al, 2016) except in cases of severe mood and behavioural disturbances. An opportunity to remain abstinent and to receive supportive rehabilitation (Table 6) in the community or in an appropriate multidisciplinary team set up is known to be the most suitable model for rehabilitation.

Table 6 Clinical Phases of rehabilitation programme (Wilson et al, 2012)

Phase 1	Physical stabilisation (variable time): Acute hospital management of encephalopathy, delirium tremens and withdrawal in the context of physical stabilisation and appropriate thiamine therapy (NICE 2010).
Phase 2	Psycho-social assessment (usually 2–3 months): <ul style="list-style-type: none">• Calm environment• Early initiation of rehabilitation programme• Regularisation of sleep, appropriate nutritional maintenance and mood stabilisation• Development of therapeutic relationships• Early engagement with family and carers
Phase 3	Therapeutic rehabilitation (lasts up to 2–3 years): <ul style="list-style-type: none">• Ecologically relevant Milieu-based approach• Adaptable environment• Diary-keeping• Activity scheduling• Graded task assignment• Memory and orientation cuing
Phase 4	Adaptive rehabilitation (variable): Adapting the environment to compensate for residual cognitive and functional deficits
Phase 5	Social integration and relapse prevention (ongoing)

Case study 2

Stephen is a 69-year-old male who was drinking alcohol for more than 30 years, mainly at weekends. He retired four years ago and since then he has been drinking 2-litre bottles of whiskey per day which is 280 units of alcohol every week. He has had over 10 hospital admissions for detoxification and to improve his nutrition. Following this, he is judged by the medical ward to have capacity in making an informed decision about the risks associated with drinking and expresses a wish to go back home. He usually remains sober only for a few hours after discharge, when he goes out and starts drinking again. No cognitive testing is done during in-patient admission, but Stephen is known to have liver cirrhosis and alcohol-related hypertension.

When he drinks heavily, he is in bed almost all the time (except when he manages to go out to buy alcohol). He does not look after his personal hygiene and becomes incontinent. He has also had four seizures related to alcohol withdrawal. He does not take his medication for high blood pressure regularly. His wife left him in a year ago, although, he believes she still lived with him. At a home assessment, he has significant short-term memory impairment and scores 57/100 on the Addenbrookes Cognitive Examination (ACE III), with severe frontal impairment and moderate impairment of memory and visuospatial function. He was referred to the community old age psychiatry service following his last hospital admission, as he has not engaged with addiction services. Although he was vulnerable in the community, no referral had been made to the safeguarding team. Stephen has poor insight into his situation, denies any heavy alcohol intake and lacks capacity over harm from alcohol.

Eventually he was admitted to an old age psychiatry in-patient ward. Currently steps are being taken to providing rehabilitation. He was incapacitous to make an informed decision about his care, which was done in his best interests after discussion with his family.

Physical complications

Physical complications from substance misuse are often evident from physical examination (see *Assessment* chapter). A detailed account of physical complications is beyond the scope of this report, but the most common acute and chronic physical complications are detailed in Table 7 below. Older people are more likely to experience adverse physical complications of substance misuse owing to accompanying age-related changes in cardiac, cerebrovascular, respiratory and renal function; as well as changes in mobility and an increased likelihood of falls.

Hepatitis C virus (HCV) is becoming a major public health problem in older people. In England, 160,000 people have chronic HCV infection (Public Health England, 2014). Chronic HCV infection is associated with end-stage liver disease and hepatocellular carcinoma but is

also treatable with antiviral therapies. Given the association of HCV with intravenous drug misuse, there is a likelihood of increased rates of intravenous opioid misuse being associated with future rises in rates of HCV infection among baby boomers in the UK. This has already happened in the United States, where baby boomers make up a quarter of the population but account for three quarters of all people with HCV (Yehia et al, 2014). Baby boomers also have a poor awareness of the need for HCV screening (Allison et al, 2016).

Table 7: Acute and Chronic Effects of Substance Misuse

Acute Effects	Chronic Effects
Intoxication: head and other bony injury	Neurological: Peripheral neuropathy, cerebellar damage, repeated head injury with chronic subdural haematoma
Overdose: respiratory depression and coma, myocardial infarction, arrhythmia, stroke	Liver and pancreatic: jaundice, fatty liver, cirrhosis, chronic pancreatitis
Complications from alcohol withdrawal (e.g. dehydration, arrhythmia, seizures)	Respiratory: Bronchitis, emphysema, pneumonia, tuberculosis, chronic obstructive pulmonary disease, lung cancer, "crack lung". Chronic rhinitis, anosmia, nosebleeds and perforation from cocaine misuse
Gastro-intestinal: acute haemorrhage, pancreatitis, alcoholic hepatitis	Gastro-intestinal: Upper and lower respiratory tract and breast cancer, hepatitis C
Cardiovascular and cerebrovascular: myocardial infarction, arrhythmia, heart failure, venous and systemic complications of intravenous drug misuse, stroke	Falls: multiple factors increase likelihood (e.g. loss of balance, poor coordination, impaired judgement, risk-taking, autonomic neuropathy, peripheral neuropathy, cardiac disease, osteoporosis and myopathy)

Adapted from Substance Misuse in Older People: An Information Guide (Royal College of Psychiatrists, 2015).

Treatment

Key messages

- There is a paucity of UK-based research and evidence for treatment interventions and services relating to the management of substance use disorders in older people.
- The evidence to date indicates that many older people with substance misuse want to abstain and have the capacity to change.
- Older people benefit from treatment, and in some cases, can have better outcomes than younger people.
- Older people respond well to brief advice and motivational enhancement therapy.
- Pharmacological treatment should always be provided as part of a management plan which includes psychosocial interventions.
- Pharmacological treatments should be used judiciously and monitored frequently.
- Treatment of co-existing psychological and physical conditions is critical to achieving optimal effectiveness of treatment for substance misuse.
- Age-specific programmes demonstrate positive outcomes for older adults.
- Intensive treatments tend to focus on abstinence as an outcome, and overall success rates at 6-12 months compare favourably with younger populations.
- Generally the more treatment delivered, the better the outcome.
- Key components of treatment are to be supportive, non-judgmental and non-confrontational, flexible, sensitive to gender and cultural differences, focused on client functioning, on coping and social skills, and holistic.
- Close liaison between practitioners and agencies, as well as family and carers, who are involved in the care of the patient is vital.

- Future research requires standardisation of age range, diagnostic tools and assessment instruments, treatment options and style of delivery in order to enhance comparability.
- The inclusion of older adults in all treatment intervention studies in substance misuse should be the norm.
- Older people should not be excluded from treatment because of age: treatment should be available, attainable and accessible.

Introduction

There is a large amount of literature on pharmacological and psychological treatments for adult substance misusers, which has been used to develop evidence-based guidance and numerous consensus statements (Lingford-Hughes et al., 2012; National Collaborating Centre for Mental Health, 2007, 2008, 2011). A detailed discussion of these is beyond the scope of this report, but the list of online resources in the Appendix and the reference list should direct readers to relevant documents and organisations.

The National Institute for Health and Clinical Excellence (NICE) has issued guidance on the treatment of alcohol and drug misuse in general, but not specifically in older people (Lingford-Hughes et al, 2012; National Collaborating Centre for Mental Health, 2007, 2008, 2011). The studies on which its recommendations are based usually exclude those aged over 65 (sometimes even those over 50), as well as those with physical and psychiatric comorbidity. However, the latest version of the Department of Health's guideline on the treatment of drug misuse and dependence includes an expanded section on older addicts, and acknowledges that the population receiving treatment for drug dependence is ageing.

Three recent reviews of the literature have assessed the evidence to support the treatment of substance misuse in older people and to identify which treatments, if any, are appropriate for this population. A systematic review by Moy et al (2011) defined older people as those aged 50 and above (Moy, Crome, Crome, & Fisher). Sixteen studies were found to fit the inclusion criteria and were categorized according to the British Association for Psychopharmacology consensus statement (Lingford-Hughes et al., 2012). Bhatia et al (2015) updated and extended this review, highlighting a further 13 papers (Bhatia, Nadkarni, Murthy, Rao, & Crome, 2015). Moy et al (2011) concluded that the evidence indicated that older people do not have worse outcomes than their younger counterparts when treated, and in some cases even do slightly better. Bhatia and colleagues have extended these findings, highlighting evidence that shows that interventions

for at-risk drinking, cigarette smoking and prescription drug misuse were associated with positive outcomes.

A third review (Kuerbis & Sacco, 2013) with broader inclusion criteria reported studies in which mixed age or non-age specific treatments were applied to older adults, those using age-specific treatments, and studies comparing mixed and age-specific treatments. The included studies spanned the full spectrum of intensity of care from brief advice to inpatient care, and the majority focused on alcohol only.

Although there were limitations to many of the studies, the overall trend of the results pointed to a greater response to treatment (particularly with a longer duration and intensity of interventions) and greater treatment adherence in an older population. Although there are potential benefits of age-specific treatment programmes, it does appear that older people can respond to treatments that have been developed and tested in younger populations.

Alcohol

Pharmacological Interventions

Pharmacological treatments are usually reserved for patients who have alcohol dependence, and they are available to treat withdrawal syndromes, to maintain abstinence, or to prevent complications (including vitamin replacement). Most pharmacological agents should be used with caution, as pharmacokinetic and pharmacodynamic considerations mean an inevitable dosage reduction and careful monitoring in older people. There is no specific guidance on the use of acamprosate, naltrexone, or disulfiram in older people. Addiction psychiatrists initiating treatment in older people should therefore work jointly – and cautiously – with old age psychiatrists and/or geriatricians and their teams, and frequently monitor treatment.

The treatment of substance misuse in older people also needs to take account of comorbid physical problems such as neuropsychiatric disorders and hepatic complications (e.g. alcoholic liver disease and hepatitis C), as well as respiratory complications such as chronic obstructive pulmonary disease (COPD). Comorbidity can be a key factor, with increased risk with age of suffering from chronic pain, insomnia, bereavement, loneliness and mood disorders. In addition, impaired memory, immobility, incontinence, sensory impairment and iatrogenic problems can develop. These physiological and other health changes mean that older people, especially some over 65, can be at greater risk of harm when using even small amounts of alcohol, medications or other substances. Falls, in particular, can have serious consequences in later life. When prescribing any psychotropic drugs for this age group it is usually prudent to 'start low and go slow'.

Prescriptions in the over-65s often include multiple medications, with plenty of scope for interactions and adverse effects. Over-65s are particularly vulnerable to the effects of drugs and alcohol due to a fall in their ratio of body fat to water, a reduced capacity to metabolise drugs, the potential presence of coexisting medical disorders and greater likelihood of drug-drug interactions.

Management of alcohol withdrawal and detoxification

Although the basic mechanisms of alcohol withdrawal are not age dependent, there is evidence that alcohol withdrawal may be more severe and more prolonged in older patients in general hospital settings, compared with a younger age group (Brower, Mudd, Blow, Young, & Hill, 1994). This finding was not replicated in a study of older patients admitted to a detoxification unit, but the presence of a comorbid physical illness was an exclusion criterion in the study (Wetterling, Driessen, Kanitz, & Junghanns, 2001b). The effect of comorbid physical illness in modifying the course of alcohol withdrawal syndrome in older patients does not affect the severity of the syndrome, but associated physical illness and age-related infirmities are a significant modifying factor (Wojnar, Wasilewski, migrodzka, & Grobel, 2001). Alcohol withdrawal can be a life-threatening condition and prompt medical intervention is essential if there are major signs of withdrawal syndrome.

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

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

Given the wide age range and heterogeneity of the patient population, each patient should be assessed, treated and monitored regularly. Older people respond very differently to younger people and the withdrawal process and reduction regime may take longer. As a rule of thumb, older people should have a lower starting dose, i.e. about quarter to half of that given to a younger person, but it is suggested that approved guidelines should be followed and monitored.

The CIWA (Clinical Institute Alcohol Withdrawal Scale (Sullivan, Sykora, Schniderman, Naranjo, & Sellers, 1989) should be used, while bearing in mind that this was devised for use with working-age adults.

Best practice guidance for the use of benzodiazepines in older patients indicates that shorter-acting preparations are preferable (National Institute for Health and Clinical Excellence, 2010a). The evidence for the use of lorazepam in the treatment of alcohol withdrawal syndrome in older people has been reviewed (Peppers, 1996). The usual lorazepam regime for a younger adult would be a slow tapering dose starting at 2 mg four times a day. As with all detoxification regimes it is safest to titrate the dose against symptoms which results in better control and a lower total dose. In older patients, particularly those with severe liver disorder, the risk of accumulation is reduced with shorter-acting preparations such as oxazepam. Chlormethiazole is not recommended for older patients because of its effect on respiration, cardiovascular complications and the unpredictability of the serum levels achieved (Broadhurst, Wilson, Kinirons, Wagg, & Dhesi, 2003). Likewise, carbamazepine has not been evaluated in older populations and is therefore not recommended.

Thiamine and Wernicke's encephalopathy

Despite the commonness of vitamin deficiency in alcohol dependence, the quality of evidence for the prevention and treatment of Wernicke's encephalopathy is weak. A Cochrane review of the evidence for the efficiency of thiamine (vitamin B1) in treating Wernicke's encephalopathy concluded that, although there is good empirical evidence to support current best practice guidelines, there is insufficient evidence from randomised controlled trials to guide the clinician on the correct dose, frequency of administration or duration of treatment (Day, Bentham, Callaghan, Kuruville, & George, 2013).

The use of oral thiamine is not recommended in the treatment of Wernicke's encephalopathy, as the levels reached from oral administration are not sufficient to address the deficiency. All patients at risk of developing Wernicke's encephalopathy, particularly those with poor diet or malnutrition (Sgouros et al., 2004), should be given 250mg thiamine intramuscularly or intravenously once daily for 3–5 days. For suspected or actual Wernicke's encephalopathy, the recommendation is a minimum of 500mg intramuscularly or intravenously three times a day for at least 2 days for as long as there

is some improvement, followed by 250 mg once daily for 3–5 days, depending on the response. Thiamine for parenteral administration is also available in formulations combining vitamins B and C. One such formulation (now withdrawn in the UK) was associated with a very small risk of anaphylaxis, mostly on intravenous administration. Consequently, intravenous administration should ideally be given in facilities where anaphylactic shock can be treated, so this should take place in an in-patient setting.

If delivery in the community is necessary, procedures should be followed to ensure safe administration (Lingford-Hughes et al., 2012).

Relapse prevention

Acamprosate, disulfiram and naltrexone are all licensed for the prevention of relapse in abstinent alcohol dependent adults (Lingford-Hughes et al., 2012; National Collaborating Centre for Mental Health, 2011). However, less evidence is available for their use in older adults. A trial comparing naltrexone as a relapse prevention medication with placebo found that the group aged 55 and over had longer drinking careers and greater physical disability. However their greater rates of treatment engagement and medication adherence were associated with a greater likelihood of abstinence (Oslin, Pettinati, & Volpicelli, 2002).

Psychosocial interventions

All pharmacological interventions should be undertaken as part of a management plan that incorporates psychosocial treatments. Psychosocial interventions are the mainstay of most addiction treatment, although outcomes may be enhanced where they are combined with appropriate pharmacological treatments. Psychosocial interventions have been evaluated in older people in various combinations and intensity and in a variety of settings. Reviews of the research evidence are available (Bhatia et al., 2015; Kuerbis & Sacco, 2013; Moy et al., 2011). The following section gives a description of the main studies and their outcomes.

Brief interventions

Alcohol problems exist across a wide spectrum of both quantity and frequency of use, and most people with risky patterns of drinking are not dependent on alcohol. The process of systematically identifying drinkers at increased risk of harm and delivering advice about moderating alcohol consumption has been shown to be an effective strategy in various settings. NICE recommends that professionals in the National Health Service carry out alcohol screening as part of routine practice (National Institute for Health and Clinical Excellence,

2010b), and the process of identification and brief advice should be offered as a first step in treatment (Day, Copello, & Hull, 2015). Older people receiving brief intervention had lower alcohol consumption than the control group after follow-up of one year or longer (Kaner et al., 2007). This benefit was greater in men than women.

Mixed-age treatments implemented with older adults

Studies testing non-age-specific brief interventions in primary care for older adults who were hazardous drinkers (e.g. (Gordon et al., 2003) have shown that hazardous alcohol consumption in older people is common and that brief interventions reduce alcohol consumption in older people similar to younger populations.

Age-specific treatment

Several studies from the USA have evaluated whether alcohol-related risks and problems are reduced by providing older patients and the primary care physicians treating them with personalised reports of drinking risks and education about the benefits of cutting down.

- Fink and colleagues used the Computerised Alcohol-Related Problems Survey (CARPS) at baseline and 12 months to classify the drinking status of patients over 65 years as either non-hazardous (no known risks), hazardous (risks for problems), or harmful (presence of problems). At baseline, 21% were harmful drinkers, and 26% were hazardous drinkers. All participants received education, but when their physician was also informed of their classification, there was a significantly greater average decrease in quantity and frequency of alcohol consumption (Fink, Elliott, Tsai, & Beck, 2005).
- A telephone disease management program for depression and/or at-risk drinking engaged 97 patients in a Veterans Administration primary care setting (Oslin et al., 2003). Patients were identified by systematic screening and assessment, and the mean age of participants was 61.6 years. Participants were assigned to either a Telephone Disease Management (TDM) program (consisting of seven regular contacts by a behavioral health specialist to assist in assessment, education, support, and treatment planning) or usual care. At a 4-month follow-up, response rates were better in those assigned to TDM (39%) compared with usual care (18%).
- A controlled clinical trial (Project GOAL: Guiding Older Adult Lifestyles) tested the efficacy of brief physician advice in reducing the alcohol use and use of healthcare services of problem drinkers aged 65 or over (Fleming, Manwell, Barry, Adams, & Stauffacher, 1999). Twenty-four community-based primary care practices in Wisconsin screened over 6000 patients, and 105 men and 53 women met the inclusion criteria and were randomised to receive

either two 10- to 15-minute physician-delivered counselling sessions that included advice, education, and contracting using a scripted workbook, or a control intervention. The older adults who received the physician intervention demonstrated a significant reduction in 7-day alcohol use, episodes of binge drinking, and frequency of excessive drinking.

- The Primary Care Research in Substance Abuse and Mental Health for the Elderly (PRISM-E) multi-site RCT compared integrated treatment in primary care with enhanced specialty referral for older adult at-risk drinkers (Bartels et al., 2004; Oslin et al., 2006). The brief intervention package incorporated a workbook and motivational enhancement techniques in three 30-minute sessions. Both arms produced an overall reduction in drinking or binge drinking, but no difference was detected between the two. However, the integrated approach was associated with greater treatment engagement, especially for those with greater problem severity.
- The Healthy Living as You Age (HLAYA) study in California was an RCT of 631 at-risk drinkers aged 55 or over in primary care (Lin et al., 2010; Moore et al., 2011). Participants were randomized to receive either an active intervention consisting of a personalised report, booklet on alcohol and ageing, drinking diary, advice from the primary care provider and telephone counselling from a health educator at 2, 4 and 8 weeks, or a booklet on healthy behaviours. At 3 months, intervention group participants reported drinking fewer drinks in the past 7 days, less heavy drinking, and had lower risk scores. At 12 months, only the difference in the number of drinks remained statistically significant.
- A naturalistic retrospective study in London, UK, followed up 108 people aged 65 and over with alcohol misuse who were referred to an old age liaison psychiatry service over a 5-year period. Of the 50 people who were managed by community mental health teams, 19 (38%) had achieved abstinence from alcohol or controlled drinking at 6-month follow-up. Treatment comprised assessment and brief intervention, accompanied by psychosocial interventions to improve social function (Rao, 2013).

Specialist outpatient treatment

A national survey of substance abuse treatment programmes in the USA found that only 18% were specifically designed for older adults (Schultz, Arndt, & Liesveld, 2003). Several potential barriers to older people accessing services were highlighted, including stigma, shame, geographic isolation, inability to pay, and transport problems. There may be a perception that older adults either don't abuse substances, or that they don't respond to treatment due to long addiction histories.

Older people have been systematically excluded from major research studies, and research has been limited to 'real world' contexts, i.e. mainly pilot programs and brief interventions in primary care.

Mixed-age treatments implemented with older adults

Attempts have been made to test the differential impact of pharmacological and psychosocial interventions in older versus younger adults. In a trial of Cognitive Behavioural Therapy (CBT) compared with relationship enhancement or vocational enhancement therapy, a post hoc analysis found that the older adult group reported higher rates of abstinence with the CBT intervention, suggesting that vocational enhancement therapy was sensitive to the life stage (Rice, Longabaugh, Beattie, & Noel, 1993). Satre and colleagues tested two types of outpatient treatment (day hospital and traditional outpatient) over an 8-week period, following the participants up after 6 months and 5 years (D. D. Satre, Mertens, Arean, & Weisner, 2003; Derek D. Satre, Mertens, & Weisner, 2004).

In comparison to two younger age groups, the groups aged 55 and over were significantly more likely to report abstinence from alcohol and drugs in the past year at the 5-year point, but were less likely to have been a member of a Twelve Step group. However, age was not an independent predictor of abstinence when controlling for gender, treatment retention and having friends supportive of reduced use.

Age-specific treatment

Attempts at developing age-specific treatment have resulted in the evaluation of three generations of one therapy protocol. The Gerontology Alcohol Project (GAP) was a pilot day-treatment programme for late onset problem drinkers aged 55 or over. It involved 50 or more 45-minute group sessions incorporating CBT, education and self-management techniques. The first 48 admissions were evaluated by Dupree and colleagues (Dupree, Broskowski, & Schonfeld, 1984), and although only half completed the treatment program, 75% had maintained their self-selected goal of abstinence or controlled drinking at 12-month follow-up. GAP was later adapted to create GET SMART (Geriatric Evaluation Team: Substance Misuse/ Abuse Recognition and Treatment) by the same research group (Schonfeld et al., 2000) and delivered as a weekly support group for people aged 60 or more. An evaluation of this second iteration again highlighted high levels of drop-out, but the 45% who completed the programme were more likely to be abstinent from alcohol at 6-month follow-up than those that didn't.

Eventually the learning from this process was incorporated in the manual '*Substance Abuse Relapse Prevention for Older Adults: A Group Treatment Approach*' (Center for Substance Abuse Treatment, 2005), and was evaluated by Outlaw et al (Outlaw et al.,

2012). The 18-session group therapy programme was supplemented by individual therapy, case management and medication management at a community behavioural health centre. Of nearly 200 participants aged 50 or over a three-year period, 42% completed at least 75% of the sessions. All drinking outcomes improved over time, but there was no difference between the completers and non-completers.

In-patient treatment

Mixed-age treatments implemented with OA

Two studies have compared the outcomes of US Veterans Association residential treatment in older adults with younger cohorts (Lemke & Moos, 2002, 2003a, 2003b). The older adult population had fewer problems at intake and lower psychological distress despite an equivalent level of dependence, and better outcomes at 1, 4 and 5 years (longer length of stay, more counselling, more involvement in supportive relationships with other residents and aftercare post-discharge, lower drinking rates and fewer drinking problems).

Age-specific treatment

Although both middle-age and older-age groups admitted to two residential rehabilitation programmes with a Twelve-Step Facilitation philosophy (Oslin, Slaymaker, Blow, Owen, & Colleran, 2005) achieved equivalent outcomes, the older adults were less likely to report Twelve-Step Group involvement or involvement in aftercare. The authors suggested that the lower rates of engagement suggested the need for age-appropriate treatment options. Therefore a series of studies in the USA have evaluated residential programs designed specifically for older adults. One programme aimed to address perceived problems that led to older adults being more likely to drop out of traditional treatment by providing a slower-paced, non-confrontational approach that emphasised the building of therapeutic alliances (Blow, Walton, Chermack, Mudd, & Brower, 2000). The mean length of stay was 20 days, and of 90 admissions evaluated at a 6-month follow-up, 56% were abstainers, 13% non-binge drinkers, and 27% binge drinkers. A second residential program in Florida included individual and group activities incorporating CBT, motivational enhancement therapy, Twelve Step Facilitation and groups adapted for older adults focusing on grief, loss, continuing care, leisure, recreation, and life stage transitions. Treatment lasted between 4 and 42 days, and 71% were continuously abstinent at 6-month follow-up and 60% at 12-months (Slaymaker & Owen, 2008).

Comparing mixed-age and age-specific treatments

An RCT comparing an age-specific residential treatment program (OAR) with a mixed-age, confrontation-based inpatient and outpatient treatment utilised a special inpatient unit which emphasized peer support, promotion of self-esteem and time-limited goal setting (Kashner, Rodell, Ogden, Guggenheim, & Karson, 1992). Greater rates of abstinence were noted at 6 months and 12 months in the group receiving the age-specific treatment.

Summary

Although there were limitations to many of the studies, the overall trend of the results points to a greater response to treatment (particularly with a longer duration and intensity of interventions) and greater treatment adherence in an older population. Brief interventions for older adults in primary care have produced mixed results. However, in general, providing advice about the potential hazards of heavy drinking is beneficial. Matching the patient to the treatment may be important. Older adults presenting to specialist treatment are heterogeneous, and have lower severity of alcohol problems even at similar rates of alcohol dependence to younger people. Treatment generally works, with similar rates of abstinence to younger groups. Age-specific treatment may potentiate treatment, possibly due to greater levels of engagement or retention in treatment, but it does appear that older people can respond to treatments that have been developed and tested in younger populations. Standardisation of age range, diagnostic tools and assessment instruments, treatment options and style of delivery would enhance comparability of research studies.

Drugs

Analgesic misuse

The misuse of prescribed analgesics may present in many ways, and several factors attributable to the patient or the prescriber may lead to this pattern of use. It may involve patients taking higher doses of prescription analgesics or 'borrowing' from a friend or relative. It may also occur when prescribed analgesics are taken for a longer duration than desired, resulting in physical and psychological dependence, or taken for cases other than the approved indication.

The prescription of stronger opioid drugs for non-cancer pain has increased over the past 25 years. For example, back pain is a very common cause of disability and often leads people to seek healthcare (Deyo, Von Korff, & Duhrkoop, 2015). Rates of prescription of opioids for back pain are increasing, and although there is some evidence for opioids reducing pain levels in acute back pain, there is little evidence

for improvement of functional outcomes. For chronic back pain, systematic reviews find even less evidence of efficacy, with a 30% reduction in pain across chronic non-cancer pain conditions (Kalso, Edwards, Moore, & McQuay, 2004). There are no RCTs that extend beyond 4 months of treatment, and so, the long-term effectiveness and safety of opioids are unknown. Loss of long-term efficacy could result from drug tolerance and emergence of hyperalgesia.

Common short-term side effects are constipation, nausea, sedation, and increased risk of falls and fractures, and these are worse in older people. A nested case-control study in a cohort aged 18-80 without cancer from the UK General Practice Research Database found that current use of one or more opioid medications was associated with a strong risk of fracture of the hip, humerus or wrist (adjusted odds ratio = 2.70, 95% confidence interval: 2.34, 3.13) (Li, Setoguchi, Cabral, & Jick, 2013). The findings suggested that acute central nervous system effects of opioids, rather than chronic opioid-induced hypogonadism, played a key role in fracture risk.

Longer-term side effects may include depression and sexual dysfunction. Addiction and overdose-related mortality have risen in parallel with prescription rates. Prescribed analgesics are implicated in intentional deaths of older people, often when taken with an antidepressant. Use of analgesic combinations, like codeine-ibuprofen, not only increases the risk of dependence but also of gastro-intestinal haemorrhage (Frei, Nielsen, Dobbin, & Tobin, 2010). Clinical dilemmas are common. Clinicians treating pain in older patients may prefer to use lower doses of analgesics to reduce the risk of abuse and dependence, but in doing so may under-treat pain. Higher levels of pain severity, symptoms of depression and lower levels of physical disability are associated with opioid analgesic misuse (Park & Lavin, 2010), making these patients challenging to treat (Jamison, Link, & Marceau, 2009).

Inconsistencies in definition of aberrant analgesic use, in objective measurement of medication consumption, and in description of clinical outcomes, can make identification of those overusing analgesics difficult (Chou et al., 2009).

Screening for high-risk patients, treatment agreements, and urine testing have not reduced overall rates of opioid prescribing, misuse, or overdose. A better strategy may be to respect the risks of the medication by more selective prescription of opioids and lower doses; use of prescription monitoring programs; avoidance of co-prescription with sedative hypnotics; and reformulations that make drugs more difficult to snort, smoke, or inject (Deyo et al., 2015).

Benzodiazepine misuse

Although not recommended for long-term use of more than four weeks, repeat prescribing of benzodiazepines is a common problem encountered in general practice. This can lead to tolerance, misuse and dependence. 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 risk of dependence. Dependence can lead to anxiety, depression and cognitive impairment causing further medical and neuropsychiatric morbidity in this vulnerable population.

Substance misuse for older women appears to be a complex, dynamic phenomenon shaped by social and personal experiences including violence, mental health disorders and social obligations (like caring for others) (Koenig & Crisp, 2008), and is often unintentional (Blow & Barry, 2012). Symptoms of benzodiazepine misuse, including cognitive impairment and falls, can be easily confused with other conditions of ageing. As primary care consultations become more rushed and services become more fragmented, misuse of psychoactive prescription medication may become more difficult to detect. To offset this risk, practitioners can frame the problem of substance misuse in older people in terms of patterns that can be 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' (Payne, Gething, Moore, & Reid, 2011).

Another recognisable pattern is 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 frameworks of age-related functional loss, prescription medicine management and observed behaviour (hoarding, alcohol use). However, it may be difficult to distinguish drug-seeking behaviour due to poorly controlled pain from true abuse of prescription medications.

It is possible that ensuring pain is adequately controlled will reduce the need for inappropriate use of benzodiazepine drugs and potential for abuse (Chatterjee et al., 2017).

Other over-the-counter drugs

Medications bought over the counter can lead to dependence, and although community pharmacists are acutely aware of this they are not always certain about how to respond to apparent misuse. A review

of the research literature identified five key groups of medication: codeine-based (especially compound analgesic) medicines, cough products (particularly dextromethorphan), sedative antihistamines, decongestants and laxatives (Cooper, 2013b). A UK survey of the general population found that being older was associated with a greater risk of abuse of or dependence on OTC medication (Fingleton, Watson, Duncan, & Matheson, 2016).

Individuals misusing these types of OTC medication often consider themselves 'addicted', but are also socially and economically active and therefore different from many illicit drug misusers. They blame themselves for losing control over their medicine use (which usually begins for genuine medical reasons), consider specialist drug treatment services to be inappropriate for treating their problems, and are often concerned that this 'hidden addiction' will be recorded in their GP medical notes (Cooper, 2013a). Laxative misuse in older people is a good example of this. It is mainly attributed to prolonged use after an episode of constipation, with the belief that daily bowel movements are necessary for good health (Roerig, Steffen, Mitchell, & Zunker, 2010). Treatment requires substitution of bulk laxatives for stimulant ones, and education about normal bowel function.

A lack of information about customers and poor communication between community pharmacies are barriers to pharmacists providing more support for older people with these forms of medication misuse. Customer expectations, medicine advertising and easy access to different community pharmacies compound the problem. There is tension between consumer freedom and the needs of pharmacists to understand more about consumers as patients (Cooper, 2013c).

The older heroin addict

The importance of preventing and treating drug use problems in older people is becoming more pressing as the UK population ages. Drug treatment services now have increasing numbers of patients who are being maintained on opioid substitution treatment into their 50s and beyond. The majority (90%) of heroin users initiate use before the age of 30 years, with only 3% initiating after 50 years of age (Wu & Blazer, 2011). It was once believed that illicit drug users 'matured' out of their drug use, but there is evidence that older heroin users do not reduce their use as they age (Rosen, Hunsaker, Albert, Cornelius, & Reynolds, 2011). In the USA, the proportion of older adults seeking treatment for substance misuse is increasing relative to younger adults, and the pattern of drug use is changing, with increasing consumption of heroin (Arndt, Clayton, & Schultz, 2011).

Patients maintained on opioid substitution treatment into their 50s and beyond have complex comorbidities and are often prescribed multiple medicines. Seamless and supportive care for these patients

is helped by a named clinician developing good relationships and communications with the patient's pharmacist and primary care team, and with mental health or other specialist health and social care services as appropriate. Primary care practitioners and community geriatricians may face rising demand for medical care from this population, because the ageing process appears to be accelerated by long-term opiate use, with rapid physiological ageing promoting multi-system disease (Reece, 2012). 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, posttraumatic stress disorder, generalised anxiety disorder, arthritis and hypertension (Rosen, Smith, & Reynolds, 2008).

Liver disease (through hepatitis C infection) was reported as the most common cause of mortality among ageing opioid-dependent people in an ageing Australian cohort (Gibson, Randall, & Degenhardt, 2011). There is evidence of damage to the structural integrity of the prefrontal cortex even in abstinent heroin users, with limitations in executive functioning, memory and attention control (Cheng et al., 2013), making awareness of drug-related cognitive impairment important for general practitioners, memory clinic staff and community mental health services.

Treatment of opiate misuse

There is considerable evidence for the use of methadone, buprenorphine and α -2-agonists (clonidine and lofexidine) in the management of withdrawal states, but it has been gathered in populations of younger adults. The choice of medication will depend on factors such as preferred duration of treatment, adverse effects (bradycardia and hypotension due to α -2-adrenergic agonists) and the severity of withdrawal symptoms. A combination of the patient's clinical condition, degree of dependence and preference, together with the practitioner's experience, will determine which drug to use. Similarly, there is an established evidence base from younger people for methadone or buprenorphine maintenance treatment. There is inadequate evidence for treatment with naltrexone and injectable opioids, and for using coercive methods, with older users.

UK National Guidance recommends a range of strategies to facilitate the management of substance misuse in older people (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017). Specialist services should provide additional time for comprehensive assessment (including collateral history wherever possible), physical examination and investigations, and easy-to-read and prominently-displayed information leaflets. The option of delivering assessment and treatment sessions within the patient's home should be available if required, and the needs

of family members or carers should be recognised and addressed. Drug treatment services should have a lower threshold for arranging inpatient detoxification for older people.

An integrated model of service delivery involving substance misuse, mental health, primary care and social care services, coordinated by a named individual, is likely to deliver the best outcomes for the complex healthcare and social needs of older people who use drugs. Older people receiving long-term opiate substitution treatment (OST) should be regularly reviewed by their GP, as the physical and mental health problems associated with prescribed opioids (see above) are equally applicable to this population. However, mobility or accessibility problems are a concern for older patients expected to attend frequent appointments. Services need to find suitable solutions when pain, mobility or anxiety is a problem, particularly in the context of damaged or absent relationships with other healthcare providers. Developing good relationships with the patient's pharmacist and primary care practice team are crucial to ensure seamless and supportive care, especially as comorbid health problems and polypharmacy become more prevalent.

It is important that older patients established on long-term prescribing for drug dependence are not faced with arbitrary withdrawal of such treatments simply due to a change of service provider, particularly if there is no evidence of instability or deterioration in problems.

Decisions about such prescribing should be based on careful, individualised assessment and should take account of all relevant factors including historical assessments of need and responses to treatment.

The majority of drug users in treatment do not die from a drug-related death (i.e. due to acute toxicity or mental and behavioural disorders due to drug use). Beynon and colleagues have shown that the likelihood of dying from a drug-related death diminishes with age, and the odds of a drug user aged 40 and over dying from a non-drug related death are three times the odds of a person aged less than 40 dying from a non-drug related death (Beynon, McVeigh, Hurst, & Marr, 2010). However, drug-induced deaths only represent a small proportion of all deaths related to drug use; deaths from conditions known to be associated with drug use, for example, hepatitis C, aspiration pneumonia, deep vein thrombosis and endocarditis, are excluded from official figures on drug-related deaths (Beynon, McVeigh, & Roe, 2007). The current focus upon drug-related deaths detracts attention from other causes of premature death and in particular, the types of death which disproportionately affect older people who use drugs.

Hser and colleagues followed heroin-dependent subjects for 33 years, investigating their health status and medical conditions by blood or physical examination (Hser, Hoffman, Grella, & Anglin,

2001). They found high rates of tobacco smoking, use of alcohol and multiple illicit drugs among these opiate addicts. The study provided objective evidence demonstrating high rates of morbidity among these surviving long-term drug users, most notably abnormal lung and liver functions and infectious diseases, and to a lesser extent, abnormal blood glucose levels. The self-rated health status reported by this sample was generally worse than that reported by men of similar ages in the general population, with particularly low scores for perceived energy level and greater perceived limitations due to physical or health problems.

A study in Scotland reported that older drug users feel that there is more stigma towards them compared to younger drug users, as professionals were perceived to dismiss them as a 'lost cause' (Matheson & Liddle 2017). This age difference could inhibit help-seeking as they felt marginalised, and there was an expressed desire to separate older and younger drug users in services. Many participants wanted specific services for older substance misusers, particularly peer support groups.

Tobacco use cessation in older adults

Tobacco smoking is less prevalent in older adults when compared to younger groups, but it remains common (Pilowsky & Wu, 2015). Statistics on smoking in England 2016 show that 11% of people aged 60 years and over were smokers, compared to nearly a quarter of those aged 16–34 year old (Office for National Statistics, 2017). Research suggests that older adults are less likely to attempt to stop smoking, and less likely to stop, compared to younger adults. However, as health status deteriorates with age, tobacco use among older adults is associated with increased health risks (heart disease and stroke) and mortality. Past-year smoking in people over 50 years old has also been associated with increased odds of binge drinking alcohol, illicit drug use and nonmedical use of prescription drugs (Blazer & Wu, 2012).

Smoking cessation interventions

There is evidence that older smokers are interested in stopping, with one study showing a 4% increase in likelihood of enrolling in a smoking cessation trial for every year increase in age (Dahm et al., 2009). However, few studies have examined smoking cessation interventions among older adults. A review found 13 RCTs that provided findings about the effectiveness of smoking cessation interventions among adults 50 years or over (10 of which were from North America) (Zbikowski, Magnusson, Pockey, Tindle, & Weaver, 2012). Nine of 13 studies found a significant intervention effect at one or more follow-up assessments, suggesting successful interventions with older adults are available and feasible. The best results come from interventions of

longer duration. Most studies included counselling of varying intensity and eight provided medication for smoking cessation (bupropion, nicotine patches, nicotine gum or varenicline).

Relatively little is known about which types of intervention or aspects of intervention design older adults may find preferable and convenient. Heavy-smoking older adults may require extended pharmacotherapy and psychosocial intervention. As newly diagnosed health problems can be a trigger for smoking cessation, healthcare providers can motivate and help older adults quit (or reduce) smoking as an integral part of their practices (Choi & DiNitto, 2015). In older smokers, depression appears to act as an important barrier to quitting, although quitting has no long-term impact on depression (Shahab et al., 2015).

The use of e-cigarettes in the older population

E-cigarettes (and the practice of 'vaping') has been marketed as a healthier alternative to smoking tobacco. However, there is a debate about whether e-cigarettes will renormalize smoking and become a gateway to tobacco use by introducing non-smokers to nicotine. The long-term health effects of using e-cigarettes have yet to be established, although a report for Public Health England in 2015 concluded that 'e-cigarettes are 95% less harmful to your health than normal cigarettes, and when supported by a smoking cessation service, help most smokers to quit tobacco altogether.' Older adults are using e-cigarettes in increasing numbers as a way to stop smoking, but also to circumvent no-smoking policies (Cataldo, Petersen, Hunter, Wang, & Sheon, 2015)

Family and carers

There is a significant body of research that shows both the impact that substance misuse can have on families (Copello & Templeton, 2012), and the positive contribution that social networks can have on treating substance use disorders (Copello, Velleman, & Templeton, 2005). Although there is little literature concerning carers of older people with substance misuse, they are likely to be central to the detection of alcohol misuse. However, their apparent lack of awareness of alcohol as a causative or contributing factor may result from their reluctance to judge the role of alcohol in the life of the person for whom they care. Second, the risk to older people from other older and younger people with alcohol misuse has potentially serious consequences for safeguarding older drinkers, who are already vulnerable to abuse (Homer & Gilleard, 1990; Reay & Browne, 2001).

Many years of illicit drug or alcohol use may leave older people with poor physical health, reduced mobility and limited social support, and it may be difficult to place them in mainstream residential or nursing homes. Some countries (e.g. Denmark, Germany, Netherlands) have developed specialised nursing homes and accommodation services for this group, but there are concerns that this process may introduce stigmatisation and increase social exclusion (European Monitoring Centre for Drugs and Drug Addiction, 2010).

‘Age-sensitive treatment’

To summarise, it is perhaps helpful to encapsulate the key components of treatment for older people. An expert panel in the USA has detailed the characteristics of age-sensitive psychosocial treatment for substance abuse in older adults (Schutte, Lemke, Moos, & Brennan, 2015). The ideal approach is supportive and non-confrontational, and flexible regarding treatment goals, approach, location, mode and duration. Physiological differences in the metabolism of alcohol and other drugs between men and women, as well as differences in the course of problems and barriers to treatment, mean that treatment must be sensitive to gender. Cultural differences must also be taken into consideration, and there should be a focus on client functioning, coping and social skills. A holistic approach considers the roles of physical and mental health conditions, disabilities and functional impairments, psychological, social, vocational and legal factors in developing a treatment plan (Schutte et al., 2015).

Case study 3

Mrs E is an 81-year-old widow living in sheltered accommodation. She was referred to the specialist community alcohol team by the older adults team, to whom she had originally been referred by her GP. She suffered from recurrent depressive disorder and her GP had prescribed an antidepressant as well as sedatives. Mrs E's relationship with her daughter was strained and there were concerns about her safety after she was found walking the streets in her nightdress in the early hours of the morning. She had previously sustained injuries following falls and, 6 years earlier, had consulted a neurologist for 'resting tremor and cogwheel rigidity'.

Mrs E reported a 5-year history of alcohol dependence following her husband's death. After admission for in-patient alcohol detoxification, she was referred to the older adults psychiatric team, but the referral was not accepted. She was therefore supported in the community by the community alcohol team before discharge to her GP. The GP re-referred Mrs E after a matter of weeks, following concerns regarding her safety secondary to falls and cognitive impairment. There was deterioration in the relationship with her daughter, who had distanced herself from her mother's care. A re-referral to the older adults team was declined. Social Services' input was sought and care put in place. This included attendance at a day centre and input from a home care service, following which Mrs E was again discharged to her GP.

Case study 3 key points:

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

Case study 4

Mrs F is a 66-year-old living with her partner (aged 52). They have been on stable methadone maintenance for over 10 years (Mrs F was prescribed a daily dose of 80 mg). Both were being managed through a shared-care arrangement between their GP and the local drug and alcohol service. Mrs F was referred to old age psychiatry services because of concerns regarding her cognitive state. On assessment she was found to have significant impairment (MMSE score of 16 out of 30). Her partner indicated that he felt 'unable' to look after her any longer and said he intended to leave the relationship. She was admitted to a dementia assessment ward, where her 80 mg dose of methadone was continued, but she very rapidly became over-sedated and the dose was reduced. It was suspected that her partner had either been using or selling part of her daily prescription. Following discussions with the local drug and alcohol service, the consultant old age psychiatrist decided that the methadone should gradually be withdrawn in order to assess its effect on Mrs F's cognitive function.

Following this withdrawal, she showed a marked improvement in cognition and self-care (MMSE increased to 24 out of 30). She underwent full investigations (including for blood-borne virus infections) and was diagnosed as having a late-onset dementia secondary to Alzheimer's disease. Her partner had 'disappeared' at this stage, and Mrs F was discharged into sheltered accommodation with Social Services' support.

Case study 4 key points:

- This case illustrates several points regarding the assessment and management of opiate use in people with cognitive impairment: such patients are very vulnerable and readily exploited
- Opiates at high doses can have a significant deleterious effect on cognitive function, particularly in patients with underlying cognitive impairment
- Close, joint working between the different teams involved in the care of these patients is essential

Current implementation

Despite a significant evidence base for the efficacy of treatment for substance use disorders, this has not always been matched by funding for service provision in the UK and other countries. Therefore it is perhaps not surprising that services that attend to the special needs of older substance users are often lacking. For example, despite the evidence for both residential and age-specific services for older adults, three out of four residential alcohol treatment facilities (rehab) in England excluded older adults on the basis of arbitrary age limits (Wadd & Dutton, 2017). The majority have limited or no disabled access, further limiting access to older adults with disabilities or limited mobility, and residential units tend to treat all residents in a similar way with the result that the needs of older adults are not fully met.

Cost effectiveness

There is a range of public health initiatives targeting substance use disorders that are effective and cost effective, summarised by Public Health England (2016). Treating people with alcohol use disorders is cost-effective: for every £1 spent on treatment, the public sector saves £5. Providing alcohol treatment to the 10% of the population with dependent drinking in the UK could reduce costs by between £109 million and £156 million each year (South West Public Health Observatory, 2008). Treatment for illicit drug use disorders is also cost effective (Connock et al., 2006). Data is starting to emerge for populations of older people (Barnett et al., 2014), but the cost-effectiveness of treatment for substance use disorders in this population remains to be fully evaluated.

Service delivery and implementation

Key messages

- Ensure that all services are user-friendly and non-judgemental, flexible and consider the individual needs of older people at all points of the treatment journey.
- Improve access to and the availability of services – age should not be a bar to receiving high quality care for substance misuse.
- Improve collaboration, communication and cooperation between health and social care professional teams, families and carers at all stages of treatment and recovery.
- Develop care pathways for substance misuse within mental health services for older people and mental health treatment for older people within substance misuse services.
- Specify operational definition(s) of integrated care and models of care.
- Review addiction psychiatry and old age psychiatry services to formulate a plan for change.
- Ensure 'mainstreaming' of skills in the management of substance misuse within mental health services for older people.
- Encourage the development of innovative models of service delivery for older substance misusers.
- Improve public and professional education about the need for, and role of, the specialist through education, training and workforce development.

Introduction

Defining the Older Population

Substance misuse is an issue for older people as well as for younger people. The profiles of substances used may differ from the younger population, but the impact of substance misuse will still influence mental health, physical health and social domains.

The definition of an older person varies. The EMCDDA defines an older person as those aged 40 or over whose recurrent drug use is causing them harm or is placing them at a high risk of such harm (EMCDDA, 2017, Responding to the needs of the ageing drug user), Dr Tony Rao in his submission to the All Party Parliamentary Group for Complex Needs and Dual Diagnosis (31 July 2017) states that typically a drinker's body will age 10 years faster than the average non-drinker.

The UK guidelines on Clinical Management (2017) also makes the point that the older age group suffer from stressful life events or lifestyle changes involving loss such as retirement, marital breakdown, social isolation, increasing morbidity or bereavement.

Psychiatric comorbidity

Most opioid users seeking treatment in community-based substance misuse treatment programmes have at least one co-occurring psychiatric disorder. The presence of psychiatric comorbidity in this population is associated with increased psychological distress, poorer quality of life, and reduced response to substance misuse treatment.

The presence of mental and physical needs and polypharmacy combined with social problems such as unsuitable housing and social isolation, will mean that the older person will be in contact with a range of services. This includes primary and secondary care, mental health and substance misuse services, social services and voluntary agencies and possibly even the criminal justice system.

Treatment pathways for comorbidity

The structure of clinical services for substance misuse often results in either:

- **Sequential treatment** – meaning that patients receive treatment from one service, so that treatment for a co-existing problem is delayed until involvement with first service has finished.
- **Parallel treatment** – which involves different providers from different services treating the same problem simultaneously

(Crome et al 2015). Research has identified that the referral of patients with co-occurring psychiatric disorders receiving methadone maintenance to a community psychiatry programme on its own is often ineffective, even after reducing common barriers to care (King et al, 2014).

An integrated care model could therefore apply to addressing physical health needs, mental health needs and substance misuse needs both within and across different services (Institute of Medicine, 2012). At present, there are elements of service models that cater for a co-occurring disease model. No comprehensive integrated care model has been identified, but “mainstreaming” should be the preferred model rather than designated services.

An identified evidence gap

Generally speaking, policy and guidance has not acknowledged co-occurring substance misuse and mental health disorders in the older population and therefore services are not well prepared or equipped for working with them. In 2016, the All Party Parliamentary Group on Complex Needs and Dual Diagnosis (APPG, 2016) highlighted the challenges to providing care for older people with ‘dual diagnosis’. The group noted that:

- barriers to assessment and treatment needed to be removed
- improved outcomes with service provision for alcohol-related brain damage, prescribed medication misuse, polysubstance misuse, as well as specialist rehabilitation and long-term care are required.
- the most common barriers to treatment are ageism, stigma, misdiagnosis, complexity and an inadequate number of specialist services.

Consequently, the group concluded that health outcomes were better with community care compared with hospital care and that ‘things cannot change and improve for older people with complex needs unless services are commissioned differently’.

The service delivery landscape in the UK

General Practitioners

The UK service provision landscape has been rapidly changing. In general practice, the trend has been for smaller GP surgeries to merge and form larger partnerships. Some of these larger partnerships are now being run by commercial companies and by charitable organisations. These GP services are generally commissioned by local Clinical Care Groups with support from Public Health England.

Substance misuse services

Substance misuse services are now largely run across England by large charitable organisations. Substance misuse services are now the responsibility of Local Authorities whose role it is to put these contracts for service provision out to tender. These tenders are competitively-run processes with Public Health England input. The specific issues for substance misuse services are frequent re-tendering, shrinkage of overall budgets, and payment by results. The additional impact has been in the loss of NHS inpatient detoxification units to the extent that there is now no NHS detoxification service within the Greater London area. Residential Rehabilitation budgets have also been reduced by a quarter across the country. As noted elsewhere in this document, there has also been a severe impact on training posts for addiction psychiatry in England.

The CQC do not currently rate substance misuse services, however this will be introduced in 2018. The CQC has, however, highlighted serious concerns from its inspections of detoxification and rehabilitation services across the UK (CQC Briefing, 2017).

Older people's mental health services

Older people's mental health services, like general psychiatry, have also faced a reduction in funding and frequent changes in care delivery models.

Impact of the changing landscape

The net impact of the changing landscape in practice has meant that services are very stretched. There is a lack of skilled staff and staff shortages. For patients this means waiting for treatment to start,

not being reviewed often enough, not seeing the same keyworker and having consistency in the delivery of care. This can also mean seeing fewer specialist staff than they would have seen in the past. Pressured services with rigid commissioning frameworks can lead to silo working practices. Practically, patients will be sicker when seen and are likely to take longer to recover.

An ageing population with more complex and multiple needs will need seamless, integrated and skilled care which is holistic and integrated.

This is a care model that can deal with all the issues arising from a co-occurring disease model. Any solution to managing substance misuse, physical and mental health care will need to come from within the services.

Table 8: Special health needs of older people with substance use problems

The UK Guidelines on Clinical Management (2017) highlight the following special health needs of the older population: (Adapted table)

Special health need	Description of need
<p>Biological</p> <p>Due to pre-existing substance misuse and as a general consequence of ageing</p>	<ul style="list-style-type: none"> • Increased sensitivity to alcohol or drugs or prescription medications. Previously safe use can become unsafe as age-related metabolic changes occur. • Age-related disorders common in the older population, including chronic pain, hypertension, diabetes, cognitive impairment and chronic airways disease. • Hepatic damage due to hepatitis B or C infection or excess alcohol use (or a combination). • HIV infection. • Chronic airways disease from smoking tobacco or from inhaling drugs or TB. • Increased cardiovascular disease risk due to alcohol, smoking and lifestyle • Venous damage (IV access can be difficult) and/or arterial damage. • Past cardiac valve destruction. • Poor dental health. • Mobility problems consequent on groin injecting or with old age. • Traumatic injuries due to falls, accidents or assaults. • Ongoing risk of overdose. • Impaired immunity. • Increased risk of cancer. • Chronic pain. • Increased risk of falls, sedation, cognitive impairment and road traffic accidents with polypharmacy, when prescribing sedating medicines such as benzodiazepines, hypnotics, antipsychotics. • Antihistamines, anticholinergics or other opioids (painkillers). • Risk of drug-drug interactions which may increase or decrease methadone levels and to a lesser extent buprenorphine. • Alcohol or drug withdrawal syndromes may be more severe and prolonged. Risk of QTc prolongation when methadone is co-prescribed with a range of medications including antipsychotics, tricyclic antidepressants, citalopram, and erythromycin.
Psychological	<ul style="list-style-type: none"> • Impaired mental health (with increased risk of self-harm and suicide). • Loneliness, boredom and mental health problems for some who become isolated with age as well as social and occupational role changes in later life. • Anxiety and depression. • Early dementia and alcohol-related brain damage. • Short term memory issues.
Social	<ul style="list-style-type: none"> • Family breakdown/relationship problems. • Housing or financial problems can develop with dwindling resources or increased care costs. • Retirement and boredom. • Ongoing criminal justice involvement.

What is integrated care?

An overview of the approach and evidence base

There are various definitions of integrated care (Old Age Faculty Report, FR/OA/05, Nov 2016).

- Micro level integration is where there is a coordination of care for individual patients and their carers (Ham and Curry, 2010).
- Meso level integration is when organisations collaborate to coordinate care for groups of patients (Ham and Curry, 2010).
- Macro level integration is when the whole system works together to connect medical needs with whole-person needs like long term care, education and training (Leutz, 1999).

Integration can be achieved by addressing mental health, physical health and substance misuse together either within a care system for an individual (e.g. a journey through an assessment, treatment, care and recovery) or between providers. The latter would be achieved by coordination between the mental healthcare system with primary care, geriatric medicine, addiction psychiatry, mental health, accident and emergency departments, social services, housing and community facilities. There is also a need to use the skills of the multidisciplinary team such as nursing, psychology, occupational therapy, pharmacy, social workers and support workers. This is endorsed by the Royal College of Psychiatrists as addiction services are seen by the Royal College of Psychiatrists as an essential component of Older People's Mental Health Services (Connolly, 2012).

This view is also supported in the UK guidelines for Clinical Management (Department of Health, 2017) which states an integrated model of service delivery involving substance misuse, mental health, primary care and social care services, coordinated by a named individual, is likely to deliver optimal outcomes for the complex healthcare and social needs of older people who use drugs. These guidelines also identified that older patients can achieve as good an outcome or even better than a younger age cohort.

Five tests of integrated care (RCGP, 2012)

The RCGP has developed the following five tests for Primary Care which can be used as a framework to assess different models of integration and inform policy.

Proposed models of integrated care should:

- ensure community-based services are led by community-based clinicians with a person-centred perspective.
- underpin safe patient care by ensuring that GPs can continue to act as independent advocates for their patients, with the emphasis on the person not the institution.
- be person-focused, responding to the needs of the individual and protecting them from over-medicalisation, with GPs working with specialists to contribute to the holistic care of the individual.

Proposed models of integrated care must **not**:

- lead to major top down structural reorganisation, which would lead to the setting up of new bureaucratic structures and divert millions of pounds away from patient care.
- lead to the diversion of NHS funding away from general practice and primary care given their vital role in delivering person-centred care.

Features of an integrated older people's mental health team (Wilberforce et al, 2016):

- A multi-disciplinary core team, including health and social care professionals
- Members directly line-managed within the team
- A single point of access
- All professionals using the same structured assessment documentation
- All or most patients having a single care coordinator
- All or most patients having a single care plan
- At least one health professional within the team able to authorise services funded by the local authority
- The team and local social services having access each other's patient records
- All core team members sharing the same office base

Implementing change in service provision

There is a pressing need for action at three levels:

Level 1- Change at the national level

National parliament and regional assemblies

The health, societal and financial implications of not meeting the needs of older people with substance misuse problems has been acknowledged politically in the UK. An all-party parliamentary group has identified skills and commissioning gaps but found, most of all, that ageism, misdiagnosis and stigma are the major barriers to developing effective services (31st All Party Parliamentary Group on Complex Needs and Dual Diagnosis, 2016). It is recommended that the Academy of Medical Royal Colleges, the Royal College of Nursing, Voluntary Agencies and other national stakeholders should collaborate to lobby both national and regional political parties to address the area of addiction in older people. Initially, this might take the form of lobbying the cabinet office for specific funding to develop older people's services under the £30m life chances fund for outcome-based interventions in addiction. Other examples of political action could include pressing for new health and social policy and legislative initiatives such as those aimed at introducing minimum pricing for alcohol.

The Department of Health

Research indicates that there are significant barriers to public awareness and understanding of the problem of substance misuse in older people (DrugScope, 2014) particularly around ageism, stigma and lack of knowledge leading to chronic misidentification and under-reporting. There is good evidence to suggest that the recommended daily limits of alcohol consumption in adults may in fact increase risk in the older person (Crome et al, 2012). Public health campaigns aimed at older people, carers and health professionals are an essential first step in driving improved service provision. This could be done under the auspices of regional public health bodies and coordinated with third sector services (Public Health Agency NI, 2016). There is also a gap in service provision for people aged 50–65. These people can have problems generally associated with presentations to older age services but be unable to access them.

The Royal College of Psychiatrists

The Royal College of Psychiatrists continues to lead in advocacy, quality assurance, service design and development of the evidence base in the field of substance misuse in the older person. Within the College many faculties share interests in this area including Psychiatry of Old Age, Addictions Psychiatry and Neuropsychiatry. In addition, the challenges of dealing with unmet needs are shared to some extent by other specialties such as Psychiatry of Intellectual Disability and Child and Adolescent Psychiatry (Royal College of Psychiatrists, CR 175, 2012).

College strategy should aim at pooling faculty resources in special populations with substance misuse, where appropriate, to act as an effective beacon of good practice and act as a medical and public advocate.

The Royal College of Psychiatrists has broadly addressed future workforce needs in mental health services in England (Royal College of Psychiatrists, 2017). The challenge lies in recruiting suitable trained psychiatrists to fill the gap left by the 60% reduction in training places within addiction psychiatry over since 2006 and to provide them knowledge, skills and attitudes appropriate for working with older people (Wessely S, 2017; Drummond, 2017). The workforce plan's emphasis on retention and return to practice could be a basis to maintain expertise in this area through greater use of flexible working. Primary care skills are also to be improved and this would be a partial solution to the urgent need to develop services (Health Education England, 2017) (The Royal College of Psychiatrists, 2017). The Royal College of Psychiatrists Divisions for the devolved nations should press for a similar approach to addressing future workforce needs and make use of the evidence base being established in mental health plans for England (Health Education England, 2017).

The College should further develop the area of substance misuse in old age as part of the College centre for quality improvement (CCQI) in its role as a coordinator of national audits and accreditation. In time, key areas such as the existence of dedicated 'dual diagnosis' services or care pathways for older people with substance misuse problems should form part of the accreditation process in Older Adults Mental Health Services (AIMS-OP), elder-friendly acute wards (CCQI-QM) and Psychiatric Liaison Accreditation network (PLAN). In its role supporting Commissioning for Quality and innovation (CQUIN), CCQI has been instrumental in auditing physical health risks in severe mental illness. This role could be expanded to data collection regarding the need for, and provision of, services in the field of older people with substance misuse to support future CQUINs under the NHS England funding framework to encourage commissioning of services (see below).

Partnerships should be developed in this field with other medical stakeholders in the Academy of Medical Royal Colleges such as the Royal College of Physicians, British Geriatrics Society and Royal College of General Practitioners. These links could be used to cultivate expertise and improve research and could be used to influence other colleges' curricula for competencies and that of the Foundation Programme. A report defining the roles and competencies of doctors working in the field of substance misuse (Royal College of Psychiatrists, 2012) will be of benefit in this area.

The Royal College of General Practitioners

The Royal College of General Practitioners has always championed integration of care as crucial to patient-centred practice, seeking approaches that improve patient care and experience as well as being efficient and effective (general practice and the integration of care: an RCGP policy report).

There are several policy papers from the RCGP outlining the need for integrated care and models and principles for integrated care such as:

- Primary care drug and alcohol treatment: commissioning and provision against a backdrop of localism (Harris and Halliday, 2013)
- Responding to the needs of patients with multi morbidity- A vision for general practice (Baker and Jeffers, 2016).
- The policy paper on Integration of Care (Mathers et al, 2012).

Health Regulators

The presence of services for older people with addictions should be incorporated into inspection criteria for the United Kingdom's healthcare regulatory bodies: The Care Quality Commission (England), Health Improvement Scotland, Healthcare Inspectorate Wales and The Regulation and Quality Improvement Authority (Northern Ireland). Initially, providers with specific services for older people with addictions could be eligible for good or outstanding ratings with such services later becoming compulsory.

The CQC in its Building Bridges, Breaking Barriers report (2016) emphasise that older people have more complex needs and receive care in multiple settings. They also support the provision of integrated care to deliver better and safer care.

The CQC report recommended:

- Locally, **health and social care leaders** build on the opportunities offered by initiatives such as the NHS Five Year

Forward View vanguards and the development of Sustainability and Transformation Plans to develop and agree a shared understanding and definition of what integrated care means for their population in their local area, and then work towards delivering this shared aim.

- **NHS England and ADASS** lead on developing an agreed methodology at a national and local level across health and social care for identifying people who are at risk of admission to secondary care or deterioration, underpinned by a clear data set.
- **Commissioners and providers** meaningfully involve older people in making informed decisions about their care needs and care planning – in particular about the outcomes that are important to them – based on the existing national and local guidance.
- **Commissioners and providers** in an area ensure that information and support for older people and their families or carers is available and that this sets out what details of what services are available, connections between different services, and how the people's accessibility requirements will be met.
- The **National Quality Board**, in partnership with the **National Information Board**, develop and share a set of validated data metrics and outcomes measures for integrated care. These should have person-centred outcomes at the heart of decision-making about service provision and be based on a consistent, shared view and definition of integration.

Level 2 - Change at the regional level

Commissioning

Commissioning strategy in this area is informed by several recent policy drivers such as the Five Year Forward View for Mental Health (NHS England Independent Mental Health Taskforce, 2016), (NHS England, 2016) and the Mental Health Crisis Care Concordat (www.crisiscareconcordat.org.uk). It is effectively summarised in the Public Health England Guide for Commissioners and Service Providers (Public Health England, 2017) that addresses addiction services across all groups including the older person.

Collaboration between services is a key principle in the guide, which recognises that potential commissioners could include Clinical Commissioning Groups (CCG), Local Authorities, Primary Care Commissioners (PCC) and Prison Governors. Services must work

across several boundaries in keeping with the NHS constitution and prevent exclusion. It is suggested that key mechanisms for commissioning services include the use of Joint Strategic Needs Assessments (JSNA) and Sustainability and Transformation Partnerships (STP).

Commissioned services should reduce harm, improve health, enhance recovery and respond effectively and flexibly to presenting needs and prevention of exclusion. This can be seen to be particularly important in the older population where engagement can be difficult, and the risk of exclusion is high and should be specifically addressed by commissioners.

Public Health England's commissioning guide (2017) sets out the following priorities for commissioners:

- An agreed pathway to enable collaborative care delivery by multiple agencies in response to individual need.
- Appointing a named care coordinator for every person presenting to services.
- Joint commissioning across all care settings supported by senior and visible leadership.
- Enabling people to access to care when and where it is most beneficial for them.
- Commissioning a 24/7 response to people experiencing mental health crisis including those who are intoxicated on presentation.
- Commissioning local pathways enabling people to access other services such as those for homelessness, domestic abuse or physical healthcare.
- Ensuring access to a range of recovery supports in both the short and long term.

It also recommends a framework of care based on:

- Enabling a strong therapeutic alliance.
- Collaborative care delivery.
- Care that reflects the views and needs of the person.

- Care that supports and involves carers.
- Therapeutic optimism.
- Safe management of intoxication.
- Routine stop smoking advice and support

Commissioners and providers are expected to collaborate across services and develop an integrated 'offer' of care to each presenting person which addresses specific needs across the domains of physical and mental health, social support and housing. Interventions should be comprehensive and NICE-compliant and be provided by competent and well-supervised practitioners.

Service access criteria are to be developed in conjunction with experts by experience to eliminate the risk of exclusion. Quality governance and safeguarding duties should be shared across all involved services.

Finally, alcohol, drug recovery and community engagement and 'stop smoking' services should be assertively promoted across all mental health services. Recent commissioning frameworks in substance misuse tenders have encouraged 'dual diagnosis', health screening and liaison activity with general hospital teams but the focus has not been on the older person age group.

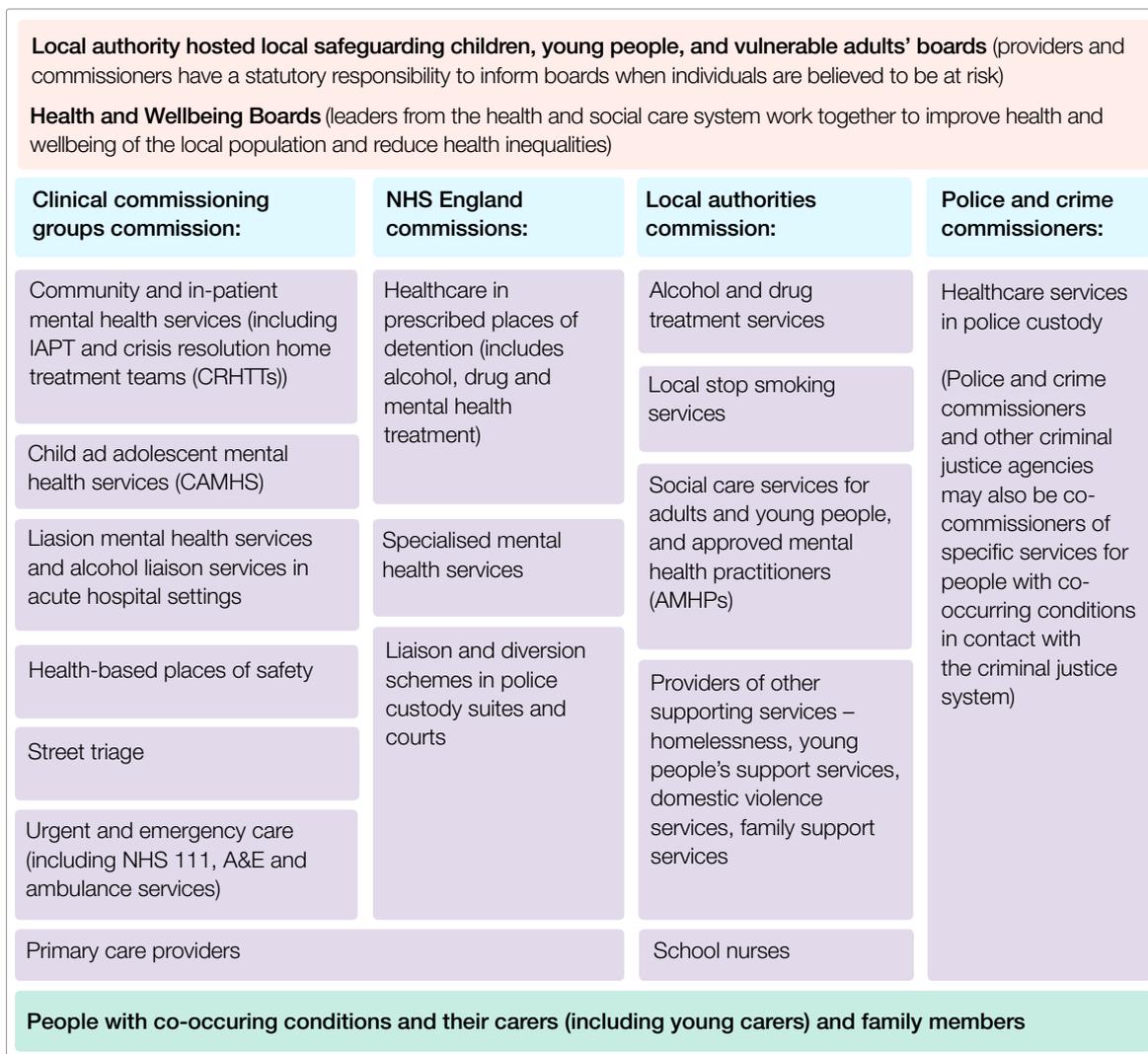


Diagram of the post 2013 commissioning and delivery landscape

Clinical commissioning groups commission:

- NHS England commissions:
- Local authorities commission:
- Police and Crime commissioners:

The CQUIN Schemes are designed to deliver clinical quality improvements and drive change. The stated goals are reducing inequalities in access to healthcare, improving the experience of using services and to improve outcomes. The 2016/2017 scheme has also been influenced by the ambitions of the Five Year Forward View (CQUIN guidance for 2016/2017, NHSE March 2016)

CQUIN Targets can powerfully influence local care delivery systems. Any provider of healthcare services commissioned under an NHS standard contract (full-length or shorter-form version) is eligible for CQUIN. This is inclusive of the independent sector, e.g. care homes, and the third sector. Future CQUIN targets encompassing the needs of the co-occurring disorder population could have the potential for dramatic service improvements.

Current CQUIN targets include:

- improving physical healthcare to reduce premature mortality in people with serious mental illness (PSMI) by assessment and early interventions offered on lifestyle factors for people admitted with serious mental illness (SMI) (CQUIN guidance for 2017/2019, NHSE Nov 2016).
- improving services for people with mental health needs who present to A&E by ensuring that the needs of these people are met more effectively through an improved, integrated service, reducing their future attendances at A&E (CQUIN guidance for 2017/2019, NHSE Nov 2016).
- preventing ill health by risky behaviours – using alcohol and tobacco – by supporting people to change their behaviour to reduce the risk to their health from alcohol and tobacco. (CQUIN guidance for 2017/2019, NHSE Nov 2016).

Level 3 - Change at Trust level and charity sector level

Particular reference is made in this section to services in Manchester and London (Rakshi, 2011) (Andrews, 2011) (Rao R and Shanks. S, 2011) that have developed services in response to local unmet need and serve as beacons of current good practice.

4.3.1 Principles in service development

Key principles in a local service for older adults with substance misuse have been identified at the national level (Public Health England, 2017). These include:

- 'Everyone's business' – All healthcare staff are responsible for identifying people at risk and arranging appropriate care.
- 'No wrong door' – Every point of contact with health and social services should be capable of identifying a substance misuse problem and arranging further assessment and management. There can be no exclusion from accessing services on the basis of substance misuse.

- 'Making every contact count' – The need for flexible services that create opportunities for assessment, treatment and harm reduction when engaging with older people is of critical importance to avoid the well-established risk of 'slipping through the net'.

Whilst services aim to enhance the quality of life of people misusing substances and prevent older people from dying prematurely (Royal College of Psychiatrists, 2015), stigma is still an issue for substance misusers and can affect presentation to services.

Older patients can feel quite suspicious of disclosing substance use based on previous experiences of disclosing this type of information. Thus, patients may present later with more serious problems.

Determining which services are needed locally

A provider should first examine what services are currently available. Ideally these should include:

- A service for older adults with 'dual diagnosis'/ 'co-occurring functional mental health and drug use conditions' based in the community. These services should also be able to build links with geriatric medical teams. Local JSNAs are a good starting point for assessing need. Also, national guidance is quite clear in that 'dual diagnosis' services should be providing more of a consultancy service role and approach rather than being a dedicated service.
- Clear arrangements for assessing and managing people with drug-related brain injury (such as alcohol-related brain disease, Wernicke-Korsakoff's disease and alcoholic dementia).
- An inpatient service to allow for complex detoxification and patients with physical and psychiatric co-morbidity.
- Liaison services to local general hospitals.
- Arrangements for seamless transition and working for patients who transfer between service areas, for example from the Emergency Departments to substance misuse services or OPMH services.

A service provider should start by compiling data on current service use and likely levels of unmet need. This could come from local audit, the national evidence base or the fingertips national database of public health profiles. Developing the necessary local data streams may be supported by a trust as part of audit, quality improvement or governance roles. There is also a gap in data in estimating the level

of need where co-occurring conditions covering substance misuse, mental health and physical health are concerned.

The “Fingertips” database, the national drug treatment monitoring system (NDTMS) and audit against national standards are useful means of identifying current good practice and where new services and roles should be developed.

Some services or components of a ‘comprehensive service’ may already be present locally. However, some may need to be built from scratch and it is anticipated that many commissioning requirements might be met through better service alignment and co-working arrangements. For example, patients with complex needs in detoxification could be managed in an appropriate in-patient setting whether this is in the NHS or charity sector **as long as the appropriate expertise and input is available**. Patients with alcohol-related brain injury might have shared care with local neuropsychiatry or brain injury services. Where demands are large or cannot be met by realignment, bespoke services may need to be designed and funded.

It is also worth keeping in mind that demand is likely to increase as the population ages. Any new service design needs to consider the future demands to cope with this. New innovative service provision can also draw in previously excluded patients which can increase the demand. It is very clear that no one service on its own can cope with the demands of mental health, addictions and physical health issues. There is also no comprehensive model available to emulate at this stage.

Building a service

For a local provider attempting to develop new addiction services for older adults, a number of key steps have been identified (Rao and Shanks, 2011):

- Building on existing good practice.
- Scoping the need for new services and roles.
- Creating new service options where possible.
- Developing clinically effective care pathways
- Promoting robust partnerships with key stakeholders (including patients and carers).
- Building a skilled workforce

- Establishing robust communication and reporting structures
- Promoting health education, prevention and early intervention for patients.

Developing best practice

Although there is an overall lack of such service provision, as noted in the Treatment section, there is a body of research which indicates that treatment can be effective for the older substance misuser. These interventions can be delivered by trained staff with appropriate facilities in a variety of settings.

Although there is an overall lack of such service provision, the first mental health strategy for mental disorders in older people with alcohol misuse has been developed in one part of the UK (Rao and Shanks, 2011).

In 2009, the initial development of this service was built on strategic aims (see Box 3 on the following page) and objectives and continues to be developed with a 'dual diagnosis' working group. This group includes a consultant old age psychiatrist, nurse consultant lead for 'dual diagnosis' across the trust, senior clinical academic group manager for quality, modern matron and nurse borough leads.

Developing effective working between substance misuse and OPMH Services- The SLAM Experience Model

The Mental Health of Older Adults and Dementia Clinical Academic Group (MHOAD) at South London and Maudsley NHS Foundation Trust (SLAM) has developed a 'dual diagnosis' care pathway aligned with the general care pathways for dementia, depression, anxiety, psychosis and personality disorder.

The 'dual diagnosis' care pathway offers a joint approach to care, involving the patient, care coordinator, General Practitioner, multi-disciplinary team, consultant old age psychiatrists and (where relevant), specialist addictions practitioners. Although not part of a comprehensive 'dual diagnosis' service, it involves screening, assessment and brief intervention for alcohol misuse and onward referral for more complex substance misuse problems.

Phases of intervention comprise assessment (including screening), engagement, assessing and facilitating motivation to change, developing an action plan that incorporates harm reduction and recovery, as well as relapse prevention. A study from this service found that 40% of older people with 'dual diagnosis' referred from medical in-patient settings achieved either abstinence or controlled drinking at 6 months follow-up (Rao, 2013).

Consequently, the SLAM MHOAD service has the potential for being replicated across other areas of the UK. This would be achieved as shown in Box 4 below.

Box 4:
How the SLAM MHOAD service could be replicated across other areas of the UK

- Building on existing good practice (e.g. referral to and from liaison old age psychiatry and addiction psychiatry services)
- Scoping the need for new services and roles (e.g. delivery of in-patient training to meet Commissioning for Quality and Innovation-CQUIN outcomes)
- Creating new service options where possible (predominantly home-based assessment and treatment of “dual diagnosis” by Community Mental Health Teams)
- Developing clinically effective care pathways (currently alcohol, but future plans to include benzodiazepines, tobacco and cannabis)
- Promoting robust partnerships with key stakeholders (e.g. patients and carers group)
- Building a skilled workforce (acquiring relevant competencies through “dual diagnosis” training)
- Establishing communication and reporting structures (e.g. serious incidents, screening and brief intervention)
- Promoting health education, prevention and early intervention for patients
- Strategic buy-in and a group to monitor, develop and implement new approaches and embed existing approaches which work well

Developing care pathways

A good starting point is to identify current pathways and to work with local CCGs and PHE to develop pathways that are needed. The development of clinically effective care pathways is at the centre of the national commissioning strategy and new evidence-based treatment pathways (EBTPs) for addiction services are under development (Public Health England, 2017) (NHS England, 2016). It is important that these include pathways to meet the needs of older patient. Current practice in London identifies three key areas for care pathway development in ‘dual diagnosis’ (alcohol) services (Rao and Shanks, 2011):

- A functional non-psychosis pathway
- A functional psychosis pathway
- An organic (brain injury and dementia) pathway

In addition to these, a care pathway will be needed for those older adults without a co-occurring mental health need:

- For medical teams and OPMH teams – A substance misuse only pathway.
- For SM teams – a pathway to physical healthcare and Mental Health
- For MH teams – a pathway to manage physical healthcare

When these local pathways are being developed it would be worth considering whether services can directly refer to each other without the need to work through a GP which would introduce a delay into the care delivery system.

In addition, practically given premises constraints across the health services, a useful way of working would be for staff to co-locate or be based for part of the week in partner services. As relationships build, care pathways will follow. Prudently, this would be worth starting on a small scale and building up.

Workforce planning and training at the local level

A number of approaches are available for workforce development and planning. In the first instance, training needs can be identified through appropriate tools such as the Leeds Capability Framework which is based on the 'closing the gap' capability framework.

Existing approaches to workforce training include:

- Institute of Psychiatry: Online understanding drugs and addiction course (<https://www.futurelearn.com/courses/understanding-drugs-and-addiction>)
- British Association for Psychopharmacology Masterclass in Addiction (<https://www.bap.org.uk/masterclasses>)
- Royal College of Psychiatrists Centre for Advanced Learning and Conferences (CALC)
- MSc/MA/ pgCert. at Kings College London (<http://www.kcl.ac.uk>), University of the West of Scotland (<http://www.uws.ac.uk>), University of West London (<http://www.uwl.ac.uk/international>), Manchester Metropolitan University (<http://www2.mmu.ac.uk/international>) or Middlesex University, London (www.mdx.ac.uk)

Experience suggests that training can be effectively implemented at a local level with rapid benefits for both patients and professionals (Saxton L, 2011) and it is recommended that training needs be incorporated into workforce planning in advance through personal development plans and appraisal processes. At a service level, staff can be trained and supported to enhance their skills base. Frontline keyworkers across medical, psychiatric and substance misuse need to be conversant with common conditions across the areas they are not working in. This makes for effective triage, brief interventions and referrals onwards.

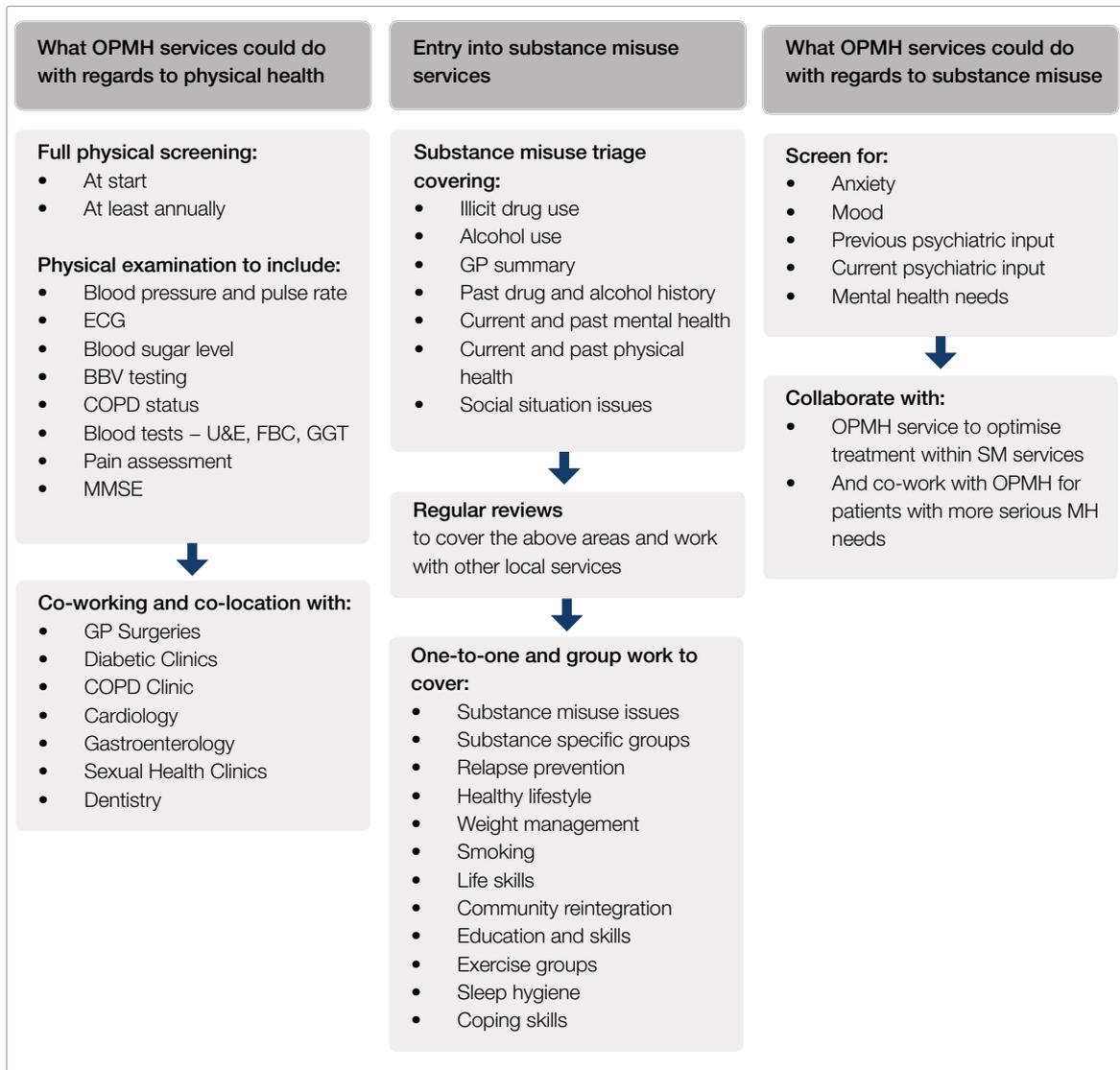
SM and OPMH staff need to have a working understanding of topic areas such as smoking, smoking cessation, COPD identification and management, obesity, liver conditions such as fatty liver, ALD, hepatitis, and end stage liver disease issues. There also needs to be a working understanding of Ischemic heart disease and hypertension, neurological conditions such as strokes and TIAs, as well as diabetes management.

Finally, a knowledge of BBVs would help. Pain management knowledge is also helpful to have SM and geriatric medical staff need to have a working understanding of common mental health conditions, such as anxiety, and how to identify and manage this, depressive illness, memory assessment and management, dementias and capacity assessment and identifying psychosis Geriatric medical staff and OPMH staff need to have a working understanding of alcohol dependence – how to screen, how to provide BI and how to refer. Additionally, they need a working awareness of the needs of an ageing OST population with all the comorbidities that accompany this. While this may seem like a big task, a simple solution may be for staff in each of these areas to train each other via joint training days.

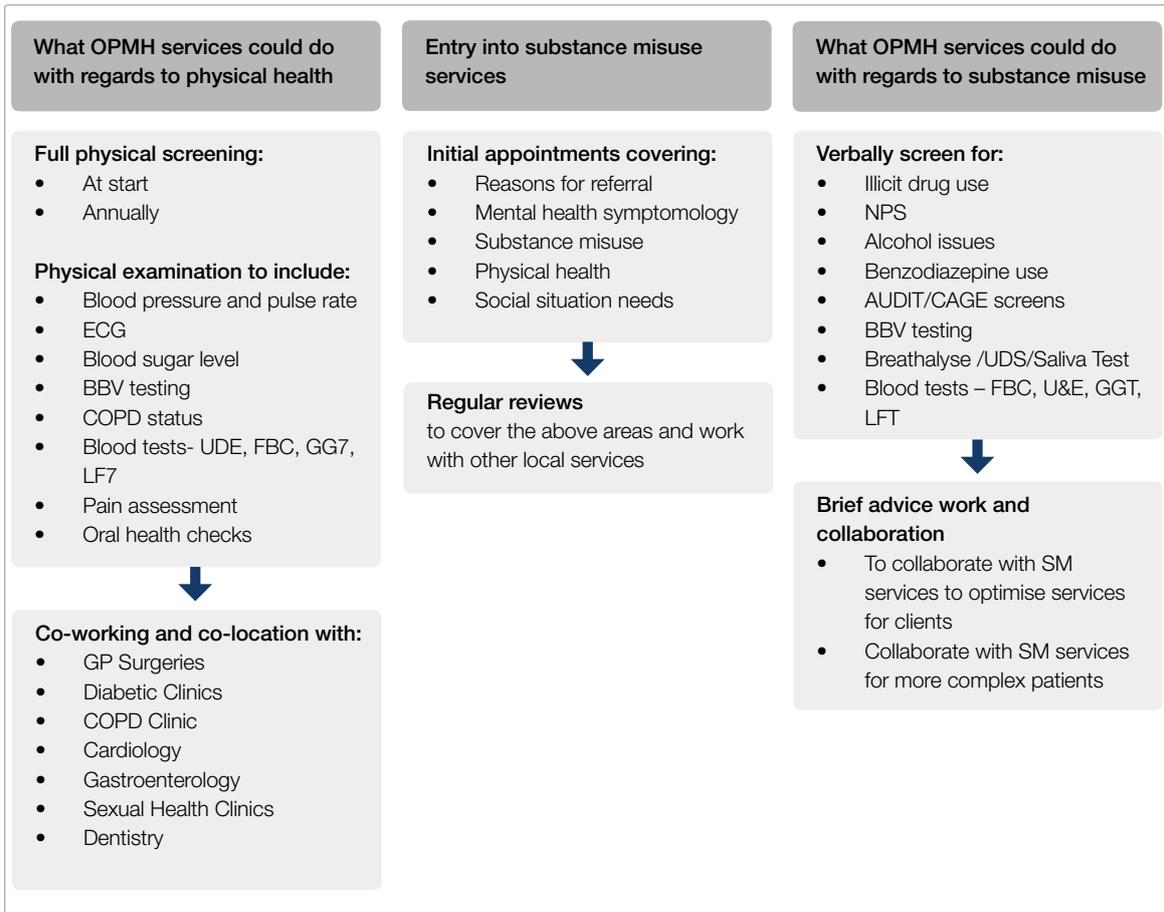
On a final note SM teams ‘get recovery’ and are good at recovery-oriented activities. These activities span mood management, anxiety management, life skills, basic healthcare, healthy living, social activities, employment and education in addition to substance misuse specific groups. This can be used across the older population to enhance recovery in the medical and psychiatric care settings.

An aspirational practical way of enhancing treatment delivery:

Example 1



Example 2



Aftercare provision

Within secondary medical care and mental health services, the common scenario is a discharge back to the patient's own GP once an episode of care has ended. The patient can then be referred back to secondary services should a problem arise again. This is a very different model from community substance misuse services. Community substance misuse services explicitly track discharges and re-presentations to services, and frequently this is linked to PbR targets.

Substance misuse services now offer a range of aftercare support ranging from one-to-one support, groupwork, post discharge programmes, volunteering and mentoring programmes as well as ETE programmes to support patients post clinical discharge and to prevent a relapse. This is a model that could be adapted within older people's mental health services.

Conclusion

To date, older people with substance misuse problems have been extremely poorly served, except in a small number of centres. The risks and problems engaging people with addictions issues are magnified and in crucial ways very different in older people. There is an increasing recognition of this problem and with this an increasing will to address it through health policy. The Royal College of Psychiatrists has a role in advocating for this group and shaping effective, efficient evidence-based services from the national to the local level. There is an increasing evidence base, and beacons of good practice have been established nationally. All psychiatry of old age and addictions services should immediately survey their current service provision and begin to develop along the lines suggested above.

Education and training

Key messages

- Education and training at all levels are central to addressing the challenges posed.
- Key skills for managing addiction and substance misuse in older people can be readily incorporated into new models of medical training, and training of other health professionals.
- An expansion in healthcare staff with skills in addictions will be needed to improve education and training across health and social services, the public and third and private sectors.
- The Royal College of Psychiatrists has a major role as a source of expertise and to aid the medical, allied health professionals and others who can be expected to do the majority of work in primary and secondary care. An expansion of the numbers of psychiatrists skilled in working with older people with addictions is required in order to deliver the necessary wider services.

Introduction

The overall picture for older people with substance abuse problems is of an unmet need, constantly growing in both scale and complexity with significant levels of physical and psychiatric morbidity, and rising rates of mortality. The Department of Health currently focuses on the treatment of drug users (Department of Health, 2010). Outside of alcohol and tobacco use and the physical complications of illicit substance use, the management of addiction has mostly remained with mental health services. To date, much work has been done developing the care of those with mental illness and co-morbid substance misuse but this has largely focused on people of working age such as the Capability Framework for working with people with dual diagnosis. The Society for the Study of Addiction (<https://www.addiction-ssa.org>) remains a leading source of expertise and advocacy in the general field of addictions. Substance misuse in older people is recognised as a growing area requiring specific research and development and specialist skills.

Addiction services are seen by the Royal College of Psychiatrists as an essential component of older people's mental health services (Connolly, 2012). Although the emphasis of this document will be on

the role of psychiatry, it is acknowledged that much of the work in this area is, and will continue to be, done in primary care.

The greater part of expertise cannot remain solely within a relatively small number of mental health professionals. There is a pressing need to equip a wider spectrum of health professionals with the skills to assess and manage addiction problems in older people before we can have effective services (see *Service Delivery* chapter).

This will require action at several levels.

Public education

Research indicates that there are significant barriers to public awareness and understanding of the problem of substance abuse in older people (DrugScope, 2014) particularly around ageism, stigma and lack of knowledge, ultimately leading to chronic misidentification and under-reporting. There is evidence to suggest that the recommended daily limits of alcohol consumption in adults may in fact increase risk in the older people (Crome I. , 2012) (Crome & Crome 2018); a powerful argument for specific education targeted at older people.

Public health campaigns aimed at older people, carers and health professionals are an essential first step in driving improved service provision. This could be done under the auspices of regional public health bodies and coordinated with third sector services (Public Health Agency NI, 2016).

The Royal College of Psychiatrists has identified four main strategic areas for development in the field of older people's mental health, including promoting engagement and awareness. It already has high-quality resources to aid in public and professional education in this field (The Royal College of Psychiatrists, 2015) and should position itself as the leading 'go-to' source for information and educational resources.

At the divisional level, the College can encourage interest in this field through their public engagement, addictions and psychiatry of old age faculties. Key stakeholders should be identified locally and include a balance of healthcare and third sector representatives and experts by experience. Engagement and awareness is probably best approached at this local level to identify and co-ordinate with existing local services to identify key areas for improving public education.

Undergraduate medical training

Undergraduate medical training in the United Kingdom was comprehensively reformed following the recommendations of Tomorrow's Doctors (General Medical Council, 2003) and the subsequent Outcomes for Graduates (General Medical Council, 2015).

Promoting excellence: standards for medical education and training (General Medical Council, 2015) sets out the standards educational bodies are currently required to meet and the General Medical Council's processes for the governance of medical education. The Royal College of Psychiatrists has previously developed an undergraduate core curriculum for psychiatry (The Royal College of Psychiatrists, 2011) although this deliberately delegates individual points of the curriculum to the medical schools to implement.

General Medical Council policy could reflect the need for development in substance abuse by older people. This could take the form of establishing it as a distinct area of undergraduate teaching in medical schools' physical or mental health programmes.

Medical schools in the United Kingdom

The medical school curriculum is set and quality assured by the school management committee and school teaching board or equivalent bodies within the university.

Research into undergraduate curricula in the UK up to 2004 found on average, a relatively small amount of teaching allocated to substance misuse which tended to be included as part of psychiatry or pharmacology courses (Glass, 1989; Crome, 1999; Crome, 2004). From 2008 there has been a concerted effort to improve education in substance misuse throughout medical training in accordance with international guidelines for curriculum development by the International Centre for Drug Policy (ICDP) (International Centre for Drug Policy, 2012).

This has focused on:

- 1 An agreed high-level curriculum in addiction across UK medical schools.
- 2 Focusing support for implementation of the curriculum at the local level.
- 3 Curriculum alignment with Tomorrow's Doctors.
- 4 High quality validated teaching materials to aid delivery of the addictions curriculum.

By 2014 some 47,000 future doctors had benefitted from the improvements to substance misuse training in the UK (Goodair, 2014). The next challenge lies in capitalising on this good start and improving expertise specifically in the area of old age substance misuse for these doctors and those who graduated before them.

Substance misuse in older people must be developed further as an important part of the larger undergraduate curriculum. It can be incorporated in formal teaching in psychiatry, care of the elderly, internal medicine and general practice. Informally it should form an increasing part of the 'hidden curriculum' (Goodair, 2014) learned through experience in everyday clinical practice in all parts of medical training. It could be developed as part of a student selected component (SSC) and form part of teaching in medical ethics where realistic management of addiction would be a useful topic for problem-based learning (PBL) (Vernon & Blake, 1993).

At a national level, the Royal College of Psychiatrists could consider a written submission to the General Medical Council about the importance of addictions in older people as a field for development in the medical schools' undergraduate curricula.

The Royal College of Psychiatrists at the divisional level can engage with medical undergraduates through facilitating opportunities for gaining experience in addictions locally and by encouraging participation in undergraduate prizes such as the medical student essay prize in old age psychiatry (RCPsych Prizes and Bursaries for Trainees, 2016). Bursaries could be established for undergraduate attendance at relevant conferences and training in line with the Faculty of Old Age Psychiatry's strategic aims of improving recruitment.

The addictions and old age faculties may wish to consider setting up an undergraduate prize in the near future that could be open to entries dealing with addiction in older people.

Postgraduate medical training

The General Medical Council

The independent Shape of Training review of Postgraduate Medical Education (Greenaway D., 2013) recommends the introduction of a generic capabilities framework for developing curricula for postgraduate training. It is proposed to focus specialist training on common areas between specialties, adding flexibility to training and to replace the certificate of completion of training (CCT) with a certificate of specialty training (CST).

Case study 5: Developing core skills at the undergraduate level

Developing core skills in the treatment of addictions, particularly in the areas of smoking and alcohol abuse is an important for all health professionals. Core competencies can be developed early in the undergraduate curriculum of medical schools and allied health professionals with immediate benefit to patients.

Medical Student intervention to promote effective nicotine dependence and tobacco healthcare (MIND-THE-GAP) (Kumar A., 2017).

An Irish study group identified that medical students were a potential untapped resource for delivering the smoking cessation education and counselling to inpatient wards.

In a small, randomised trial, students who had received standardised cessation training had better outcomes working with patients than standard hospital interventions. There was positive feedback from both patients and students and the method is being further investigated.

Undergraduates can develop the necessary skills quickly and incorporate them into patient care at an early stage. Although medical students are used in this example it represents an ideal opportunity to share experience with other healthcare professionals training in nursing and allied health professions.

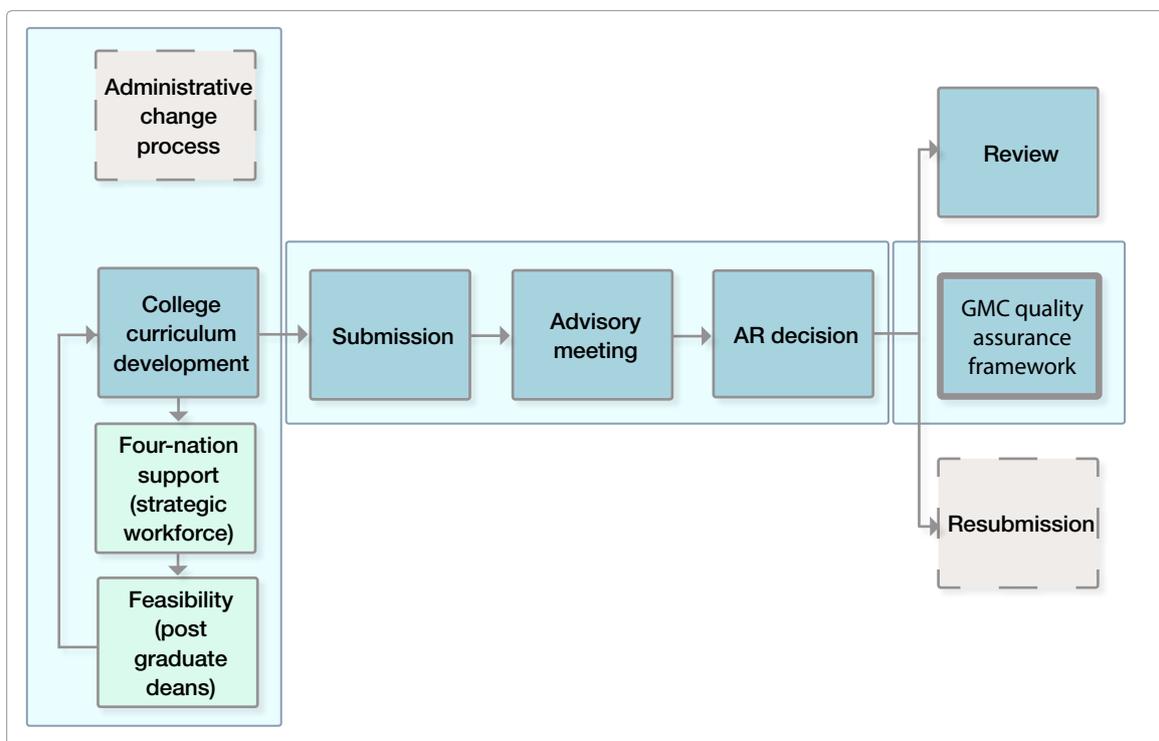
The new Generic Professional Capabilities Framework is based on Good Medical Practice (General Medical Council, 2013) and covers areas such as communication, leadership, quality improvement and safety. It is to be used as the basis for developing new postgraduate medical curricula (General Medical Council/ Academy of Medical Royal Colleges, 2017).

Adapting for the future (General Medical Council, 2017) sets out a future where postgraduate medical training will be increasingly flexible and consist of related curricula sharing outcomes across medical specialties.

As noted, the field of substance misuse (and especially substance misuse in older people) is an example of a topic with professional values, skills and knowledge that are important across multiple medical specialties. Generic professional capabilities in health promotion and safeguarding the vulnerable are also widely applicable.

Within the Royal College of Psychiatrists, the Faculty of Old Age Psychiatry and the Faculty of Addictions must develop and advocate for the explicit inclusion of substance misuse in the elderly in new postgraduate curricula. They should identify key commonalities in the field of old age substance misuse with faculties of other medical royal colleges to design common curricular details in line with new guidance in the documents Excellence by Design (General Medical Council, 2017) and Standards for Curricula and Assessment Systems

(General Medical Council, 2017). The following new simplified process for curricular improvement will allow quicker design, implementation and review of future curricula.



New processes in developing and approving postgraduate medical curricula (General Medical Council 2017)

From 2012, the General Medical Council (GMC) has been working to introduce credentialing, which aims to provide a framework of standards and accreditation in areas where regulation is limited or absent (General Medical Council, 2015). It is expected that the credentialing process will roll out in different medical specialties simultaneously, on the basis of providing added value to patients and the public. It is suggested that the field of substance misuse and addictions in older people would be a good topic to pilot for the proposed credentialing process.

In addition, the GMC is well placed to emphasise the importance of competency in this area as part of medical revalidation within relevant specialties.

The Royal College of Psychiatrists

The competencies to deal with substance abuse in older people can be developed at all levels. It should be part of developing old age and addictions competencies in core training and a topic for examination at MRCPsych papers 1 and 2 and CASC. It is suggested the topic can be easily integrated into existing areas rather than standing alone and that a database of examination resources could be quickly established and resources incorporated into the trainees online (TrOn) educational modules.

At the post-membership level, substance abuse in the older people should be further developed as a specific topic in higher specialist training for an old age psychiatry certificate of completion of training (CCT) and in addictions and liaison endorsements. It must be viewed as a key area of competency with distinct, important differences in assessment and management as compared to substance misuse in working adults.

The responsibility for implementation of the specialist training curricula in old age psychiatry and in addictions will lie with the local deanery, Training programme directors (TPD) and educational and clinical supervisors. They will need to map the area of addictions in older people to the intended learning outcomes described in current and future College curricula for specialist training (Royal College of Psychiatrists, 2015) (Royal College of Psychiatrists, 2015) (Royal College of Psychiatrists, 2016) to the local training programme.

The old age faculty of the Royal College of Psychiatrists would be well placed to advise TPD what form training should take and what would be considered appropriate evidence of competency at the annual review of competence progression (ARCP) (Fitch, 2008).

At present, there is an additional role for the Royal College in ensuring that substance misuse in the older people forms part of the assessment criteria in determining eligibility for a certificate of eligibility for specialist registration (CESR) in the field of psychiatry of old age.

The existing continuing professional development in this area, online and through College courses organised through the centre for advanced learning and conferences (CALC), such as the annual update on providing care for older substance misusers should be developed and expanded.

The College should promote and advertise opportunities for research and policy development nationally and lead in the identification of best practice, evidence-based treatment pathways (EBTPs), audit tools and outcome measures, either specifically in the fields of addiction and old age psychiatry or as part of other areas such as the national audit of dementia (Royal College of Psychiatrists).

The Academy of Medical Royal Colleges

Partnerships should continue to be developed in the field of substance abuse in older people with other medical stakeholders in the Academy of Medical Royal Colleges such as the Royal Colleges of Physicians (possibly through the British Geriatrics Society) and Royal College of General Practitioners.

The core medical competencies for working in the field of substance abuse generally have already been outlined by a working group

representing 13 Medical Colleges and working extensively with patients to promote effective compassionate care (see *Notes and thoughts from a patient* chapter).

Key Recommendations for core competencies in substance misuse (Alcohol and other drugs: core medical competencies, Academy of Medical Royal Colleges, 2012) (Sinclair et al, 2012)

Knowledge	Skills	Behaviour and attitudes
<ul style="list-style-type: none"> ● Effects, common presentations and potential for harm. ● Addictive potential of prescribed and non-prescribed drugs. ● Interventions, treatments and prognosis. ● Effects of drugs on children and families. ● Lower risk limits on alcohol use. 	<ul style="list-style-type: none"> ● Competency in assessment ● Recognition of acute and long-term presentations ● Providing brief advice 	<ul style="list-style-type: none"> ● Effects, common presentations and potential for harm. ● Addictive potential of prescribed and non-prescribed drugs. ● Interventions, treatments and prognosis. ● Effects of drugs on children and families. ● Lower risk limits on alcohol use.

These links cultivate and share expertise and allow further coordinated incorporation of key knowledge, skills and attributes across medical training.

The majority of work in the area of substance abuse in older people will naturally take place in primary care. The Royal College of General Practitioners (RCGP) also plays a lead role in advocacy, quality assurance, setting a vision, training, service development, improving evidence base and supporting integrated care provision in this field. The existing RCGP substance misuse training modules have enjoyed a wide support base. These could be expanded to cover the needs of the older population.

The Royal College of Psychiatrists already has well-developed partnerships operating with the Royal College of Psychiatrists, the British Geriatrics Society and the Royal College of Physicians in a number of areas and these must expand to embrace substance misuse in older people.

Local Education and Training Boards (LETB) and Postgraduate Deaneries

Local education and training boards and postgraduate deaneries have responsibility for curriculum delivery. Their quality assurance and governance processes will need to ensure that curriculum appropriate training in substance misuse in older people is effectively delivered by the local educational providers (LEP).

It is important that the Royal College of Psychiatrists, regional governments and the postgraduate deaneries do not lose sight of topics such as addictions in older people, as new training arrangements are introduced. Although the area is common to many specialities, care must not be taken to let it be lost in the gaps between curricula. It is also important that the Royal College of Psychiatrists leads in curricular development and implementation, and the future development of post-CST credentials in substance misuse in older adults. (British Medical Association, 2017).

Cultural aspects of training

Providing healthcare for an increasing population of older people may, in itself, prove to be a cultural challenge to successive generations of medical practitioners. There may be different attitudes to the stigma of substance misuse and also to the risks it poses to the individual. Communication and public education strategies will need to include those not routinely using electronic and social media and be geared to reaching socially-isolated individuals.

Our ageing population is also increasingly culturally diverse with the attendant social and linguistic challenges for healthcare providers. Stigma, in particular, may be higher in ethnic minority communities and act as a barrier to both substance misusers and their carers seeking help.

In the field of addictions, which involves the ability to develop a therapeutic relationship, build trust and employ tools such as motivational interviewing, success will increasingly require practitioners to develop cultural skills.

The importance of cultural competency in medical education has been recognised for some time (Betancourt & Alexander, 2010) (Betancourt J., 2006) (Rao, 2006). Both educators and practitioners must be appropriately trained in delivering healthcare across cultural and linguistic barriers (Betancourt & Alexander, 2010).

Culturally competent in medical education (C2ME) is a consortium of 14 partner institutions across 11 countries, with the University of Leicester representing England. It has developed policies, strategies and tools to integrate cultural competence-based learning objectives across the undergraduate medical curriculum and to develop competencies in medical educators (Ikram & Suurmond, 2015). It is proposed that the Royal College of Psychiatrists and Medical Schools can make increasing use of this resource in the future when developing training.

Allied health professionals

Undergraduate healthcare training

The substantial healthcare challenge posed by addiction in the ageing population will impact beyond psychiatry and medicine. In keeping with the principles of 'everyone's business', 'no wrong door' and 'making every contact count' (Public Health England, 2017) all healthcare staff will need to be skilled in identifying and engaging older people with substance misuse issues. It is recommended that the Royal College of Psychiatrists' faculties of addictions and psychiatry of old age should develop closer links in this field with other bodies governing and quality assuring undergraduate education such as the Nursing and Midwifery Council (Nursing and Midwifery Council, 2010), The Health and Care Professions Council and The College of Social Work (Narey, 2014). The field of substance misuse in older people should also be an on-going part of the curriculum for pharmacy undergraduate and pre-registration training (Sosabowski 2008) both of which are governed by the General Pharmaceutical Council (GPhC).

Postgraduate healthcare training

Allied healthcare professionals working in the fields of mental health, elderly care and addictions should all have the requisite training in addiction and substance misuse in older people as part of their induction and training by their employer with appropriate quality assurance and appraisal.

Similarly, there should be an expansion in accredited postgraduate training and continuing professional development (CPD) through the Nursing and Midwifery Council and the Health and Care Professions Council (especially in the fields of clinical psychology, counselling, social work, dietitians and occupational therapy).

Physician assistants are likely to form an increasing part of the healthcare workforce and the field of addictions and substance misuse in the older people should also form a part of both the postgraduate diploma curriculum in universities and in recertification (Ostler, 2012).

The healthcare provider

Health and social care providers

The development of clinically effective care pathways is at the centre of the national commissioning strategy and new evidence-based treatment pathways (EBTPs) for addiction services are under development (Public Health England, 2017; NHS England, 2015). It is important that these include pathways to meet the needs of older patients.

It is important that healthcare trusts provide opportunities for training of staff at all levels to allow treatment pathways to work effectively. There is experience to date in developing training within a small number of trusts using local resources (Saxton L, 2011). These serve as useful evidence-based templates for developing local and regional training. Given the anticipated demographic challenges in substance misuse in older adults and the national scope of the problem, knowledge of best practice will have to be made widely available. With respect to individual expert practitioners in the field, formal training will be required. In training a wider range of staff, use could be made of national resources such as the development of specific modules as part of e-learning for healthcare or by commissioning training through private providers.

To ensure the development of a skilled workforce trust governance processes will have to include appraisal of competencies in staff working in areas such as psychiatry of old age and care of the elderly.

Other providers of healthcare

The nature of addictions in older people is such that the opportunity to engage the patient effectively may arise at many different points. As discussed above, public education will be key to producing the societal changes necessary to improve awareness and help seeking. To that end, education and training will need to be provided to other services likely to come into contact with older people with addictions.

Much day-to-day contact with potential patients is likely to come through those providing care in nursing and residential homes, sheltered and assisted housing and through those providing care packages. The need to provide specialist training for staff looking after older people in areas like dementia care and capacity assessment is well-recognised and it is proposed that this should also apply to substance misuse and other addictions (Carter, 2015). From 2015, in England and Wales, the common induction standards and national minimum training standards for healthcare assistants and social care workers have been replaced by a care certificate based on 15 standards that must be completed within 12 weeks of starting employment. Addiction issues in older people falls into several of these standard areas and could be expanded upon in the future by the care quality commission (CQC).

Other services likely to come into contact with older people with addiction issues include community pharmacists who may become aware of abnormal patterns of prescribing, or purchasing in patients or who may be approached for advice by carers. Training in substance misuse in the older people would be an important part of continuing professional development (CPD) in this area.

Professionals in the criminal justice system can also increasingly be expected to be a first point of contact for older people with addiction and substance misuse issues. The specific needs of older people should form part of substance misuse education in programmes such as prison officer entry level training (POELT), initial training programmes and continuing professional development (CPD) as regulated by the College of Policing and the Professional Qualification in Probation (PQIP).

As previously noted, the Royal College of Psychiatrists has an important role in advocating for increased training but also in helping to develop training programmes and expertise. Indeed, it has already developed a two-day course on substance misuse in older people. This is also likely to be required by third sector partners and the College can help design training and signpost good practice.

Conclusion

Substance misuse in older adults constitutes a significant challenge to both public health and existing services. Addressing the problem will require raising public, professional and political awareness in a relatively short space of time. We need health professionals that:

- are aware of substance misuse as an issue in older people and capable of identifying complex presentations
- are capable of effectively and compassionately working with this group of people
- have the skills to assess and manage substance misuse in older people and effectively refer them to effective care.

Educating current and new generations of healthcare practitioners will require a carefully prepared curriculum and educational tools that must be integrated in the new era of medical training. The central role of allied health professionals, professionals working in the criminal justice system and other areas must be recognised and the development of effective training facilitated. The Royal College of Psychiatrists has a role as both an expert and an advocate for better services.

Ethical and legal considerations in older people with substance misuse

Key messages

- Older people with substance misuse should not be assumed to lack capacity even if they make what may be perceived as unwise decision(s).
- Consider 'substance misuse' as a possible cause in any older person with fluctuating mental capacity or elder abuse.
- All practicable steps including timely and planned review should be undertaken to optimise the ability to demonstrate capacity in older adults which is time and task specific.
- Apart from mental health interventions covered by statute, all adults can refuse medical procedures contemporaneously or in advance when they are capacitous.
- If a healthcare professional suspects substance misuse in an older person, joint working with other teams and social care involvement should be undertaken to assess capacity and proactively identify any associated safeguarding concerns.

Introduction

Older people with substance misuse present particular complexities when it comes to ethical issues, especially with consideration to capacity, consent and the principles used to determine the best interests of a patient. This can make it difficult for those involved with the care of these patients to weigh the extent of a person's individual rights (their autonomy) and their responsibilities to act in the best interest of that patient. The laws concerning adult safeguarding, confidentiality and societal protection, as well as wishes of the families,

could further add to these complexities. Some of these ethical and legal considerations are discussed here as the issue of increasing prevalence of substance misuse in older adults is an emerging challenge for clinicians. This chapter summarises the ethical and legal issues which many healthcare professionals may find an informative read.

Mental capacity

In England and Wales, the Mental Capacity Act (MCA) 2005 (BMA 2016) is used as the legal framework for guidance on issues around mental capacity; whereas for Scotland, the Adults with Incapacity (Scotland) Act 2000 is applied (Adults with Incapacity Act 2000).

The complex nature of problems associated with substance misuse in older people means that there are particular issues around mental capacity, especially when there is a conflict between capacity and the role of the practitioner in encouraging the older person to give up substance misuse (Hazelton et al, 2003).

This is especially relevant given that one of the core features of dependence syndromes is the persistence of substance misuse, despite the user being aware of the harm from the substance being taken. Using the core feature of harm awareness, an assessment of mental capacity in substance misuse can help distinguish an unwise decision from a lack of mental capacity on its own.

‘The Mental Capacity Act 2005 (BMA 2016) contains a two-stage test of capacity:

- Is there an impairment of, or disturbance in the functioning of, the person’s mind or brain?

If so:

- Is the impairment or disturbance sufficient that the person is unable to make that particular decision?’

Under the Mental Capacity Act, a four-stage assessment of decision-making ability is required to prove that an individual is able to make a specific decision at that specific time:

- Possessing a general understanding of the decision and why they need to make it
- Possessing a general understanding of the likely consequences of making/not making this decision

- Possessing an ability to understand, retain, use, and weigh up the information relevant to this decision
- Possessing an ability to communicate their decision (by talking, using sign language or any other means)
- A central principle of the MCA is the presumption that all adults have the capacity to make decisions for them, unless proven otherwise. Provisions for surrogate decision-making should only be resorted to after it has been proved that an individual is unable to make a particular decision because of an impairment of, or disturbance in, the functioning of the mind or brain.
- The other four central principles of the Act are as follows:
 - A person must be given all practicable help before anyone regards them as not being able to make their own decisions. (For example, consider: Would the services of a professional such as a Speech and Language therapist be helpful?)
 - A person is not to be regarded as unable to make a decision merely because they make an unwise decision.
 - Anything done or any decision made under this Act for, or on behalf of, a person who lacks capacity must be done, or made, in their best interests.
 - Anything done or decided for, or on behalf of, a person who lacks capacity should be the least restrictive of their basic rights and freedoms.

Capacity can vary over time and change for different decisions; hence assessment of capacity is 'task-specific'. For substance misusers, this becomes an even more crucial issue, as their states of incapacity may fluctuate according to their level of intoxication or delirium, or according to the time of the day. Ideally, any decisions should be put off until the person regains capacity, if practically possible. If a person is deemed to be 'lacking capacity', it means that they lack capacity to make a particular decision or take a particular action for themselves at the time the decision or action needs to be taken.

The MCA applies to anyone who has 'an impairment of or disturbance in the functioning of the mind or brain', which may or may not be appropriate to all older people with substance misuse problems.

Assessing mental capacity of an older adult with substance misuse

The Mental Capacity Act is accompanied by a statutory Code of Practice (Mental Capacity Act Code of Practice 2007) and healthcare professionals have a legal duty to be aware of this.

The other aim of code of practice is to provide guidance to people on what they must do when they work with people who can't make decisions for themselves or care for people who can't make decisions for themselves.

'According to The Mental Capacity Act 2005 (MCA) certain people must think about the code of practice when they act or make decisions on the other person's behalf. This would include:

- an attorney appointed under a lasting power of attorney
- a deputy appointed by the Court of Protection
- an independent mental capacity advocate
- a person doing research approved in accordance with the MCA
- a person who acts in a professional capacity for, or in relation to, people who can't make decisions for themselves
- a person who is paid to act for or in relation to people who can't make decisions for themselves.'

For England and Wales, the British Medical Association and the Law Society have produced detailed (Keene 2015) guidance for doctors and lawyers on assessing mental capacity. Scotland and Northern Ireland have similar assessments for testing mental capacity of patients. Many other European countries have similar guidance in place.

As per the BMA guidance and document (BMA 2016), capacity and competence are similar terms, are task-specific and to start with all adults are assumed to have capacity (ability to make a decision).

Mentally capacitous older adults with substance misuse

Healthcare professionals should be trained to assess the mental capacity in this challenging group of older patients before offering any medical treatment.

Any older patient who is mentally capacitous can make their own decisions and this principle would apply to anyone with history of substance misuse. Some of these older adults may have their capacity affected by medications or at particular time of day and with support they may be able to make their own decisions at least for some tasks.

Capacitous adults can decide for themselves whether or not they accept medical treatments or any other interventions offered to them by the clinicians. If they have capacity, they can also set up advanced directives. Unless unconscious, most of these adults would be able to make some valid decisions or be able to express their views and preferences. If there is doubt about mental capacity, unless it is an emergency, formal psychological assessments should be requested by specialists (BMA 2016).

If that individual is deemed as having the capacity to make a decision for themselves and if that individual is shown as being able to weigh up the consequences of their decision and still choosing to use a particular substance – the MCA safeguards that individual's decision-making capacity by suggesting that decisions otherwise deemed 'unwise' are legally acceptable.

Case study 6

An 82-year lady is referred by her GP to the care of the geriatric medicine service with concerns over poor mobility and a pre-occupation with pain in her hands.

There is no evidence of bony injury or joint damage. After speaking to the GP, it becomes evident that she has 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, she describes pain in hands as 'unbearable' and says 'no one is taking me seriously'. The onset of this pain coincides with the death of her neighbour, her only source of social support. There are also ongoing financial worries. Her only child lives nearby, but they became estranged following an argument 'over money' a year ago. There is no other evidence of chronic physical health problems but she reports her mood to be worse over the past 6 months. Apart from prescribed benzodiazepines and opiate containing analgesics, she also buys opiate-containing analgesics (e.g. codeine) over the counter.

On mental state examination, she is agitated, her hair is uncombed and her affect is anxious. There is evidence of depression, anxiety, panic attacks and agoraphobia, but no cognitive impairment and she is able to make informed decisions about her treatment and care.

Case study 6 key points:

- This case illustrates the issue around opiates and drug dependency which was masked by the focus on physical symptoms whereas drug misuse was the hidden issue in this case.
- Such patients may be suffering from depression or anxiety due to various reasons and need to be given more time to judge their mental capacity.

Mental incapacity in older adults with substance misuse

If a healthcare professional has undertaken an assessment and found that an older adult with substance misuse has lost the capacity to make their own decisions for a particular intervention offered to them, they should then find out if the patient has any advanced directives or a proxy decision maker. Those views and prior wishes expressed by patients should be taken into consideration, before any health team decides on the 'best interest' option for the 'incapacitated adult' (BMA 2016).

Case study 7

A 62-year-old man is referred to a Community Mental Health Team (CMHT) by a local housing officer after neighbours witnessed a series of falls on returning to his flat in the evenings.

He has 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. He has not paid his rent for the past 6 months and his housing officer has only managed a 'doorstep' visit, at which it was noted that he was dishevelled, unshaven but did not look thin and was dressed appropriately. At the same visit, he was irritable and abusive but not intoxicated and denied any financial problems. He 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 he was unwilling to seek further help.

Case study 7 key points:

- The case shows the importance of close working and good communication between various teams looking after an older person with suspected alcohol dependency.
- These patients are vulnerable and prone to physical and mental issues if alcohol and drug dependency issues are not dealt with in a proactive manner.

If a patient has capacity and refuses to engage with other services for help, it would be considered an 'unwise decision' – something legally any capacitous adult can make as long as it is not putting others at risk of harm.

Law relating to mental capacity

All legal jurisdictions in the United Kingdom have moved to using capacity-based legislation. Case law is building and it is reasonable to expect that the issue of an individual's capacity to choose to engage in harmful substance misuse will arise. In England, people with mental incapacity over finances, health and welfare are overseen by the Court of Protection. There will also be an important role for the Medical Royal Colleges, Medical Protection Bodies and the Regional Departments of Health in monitoring and disseminating legal guidance to practitioners.

Deprivation of Liberty Safeguards

Deprivations of Liberty Safeguards (DoLS) may involve those with substance misuse or those under the influence of drugs or alcohol. If an older person is resisting treatment and it is clear that they are lacking capacity, health professionals sometimes consider the use of restraint, or impose restrictions on a person's liberty to provide a treatment which is in their best interests.

'To be lawful, deprivation of liberty needs to be authorised in accordance with procedures set out in the Deprivation of Liberty Safeguards which were added to the Mental Capacity Act by amendments introduced by the Mental Health Act (MHA) 2007. In an emergency, treatment must not be delayed for the purposes of identifying whether a deprivation of liberty has taken place, or seeking its subsequent authorisation. An authorisation for a deprivation of liberty does not provide legal authority for treatment. Treatment for adults unable to consent must be given on the basis of an assessment of their best interests by health professionals' (BMA 2016).

The Mental Capacity Act Deprivation of Liberty code of practice states that depriving a patient of liberty may be justifiable if:

- it is in their best interests to protect them from harm
- it is a proportional response when compared with the harm faced by the person
- there is no less-restrictive alternative.

There are two types of DoLS authorisation: standard and urgent.

Standard authorisations

After receiving an application for a standard authorisation, the supervisory body has to decide within 21 days whether the person can be deprived of their liberty. If the conditions are met, the supervisory body must authorise the deprivation of liberty and inform the person

and managing authority in writing. It can be authorised for up to one year. The person does not have to be deprived of liberty for the period of authorisation. The restrictions should stop as soon as they are no longer necessary.

Urgent authorisations

There will be times when a person may need to be deprived of their liberty before a standard authorisation can be provided. In these situations, the managing authority can itself issue urgent authorisation which can last up to seven days, with an option to extend it for a further seven days if the supervisory body is in agreement. When issuing an urgent authorisation, the managing authority must also request a standard authorisation (BMA 2016).

Advance directives

The level of capacity required to request or refuse treatment in advance is the same level that would be required for making the decision contemporaneously. It may be demonstrated by patients who lack insight into other aspects of their life, as long as they understand the nature, purpose and likely effects of particular treatments (BMA 2016).

Across the UK a number of laws exist which delineate the assessment of capacity and protect the rights of those who lack capacity (Adults with Incapacity (Scotland) Act 2000, Mental Capacity Act 2005 (England & Wales), and the Mental Capacity Act (Northern Ireland 2016). All these pieces of legislation must comply with the European Convention on Human Rights, and ensuring that any intervention for any person lacking capacity is in their best interests.

Relevance of advance instructions by older adults with substance misuse

Advance directive/living will/advance refusal are clear instructions (by a capacitous and informed adult at the time of making these decisions) for the healthcare teams. Patients can refuse a medical procedure or intervention such as participation in research (BMA 2016). These refusals may become invalid if, for example, the treatment options which the patients refused materially change after they lost their mental capacity (which could be due to substance misuse). Any refusal which could potentially be serious obliges health professionals to take account of the patient's past and present wishes, however communicated. This would also apply where there is a risk of harm to others.

On the other hand, an advance authorisation or request reflects a capacitous individual's preferences for certain positive interventions after competence is lost. These are not binding as are advance refusals.

The BMA states that 'Whenever a person is making a decision on behalf of an adult who lacks capacity, they must consider if it is possible to make the decision in a way that is less restrictive of that individual's fundamental rights or freedoms. There are often several ways to achieve a desired outcome, and where possible the choice must be the one that interferes least with the individual's freedoms while still achieving the necessary goal. The option chosen must, however, be in the person's best interests, which may not in fact be the least restrictive' (BMA 2016).

What to do when one is not sure of capacity in emergency situations?

As a general principle, the law expects doctors to act reasonably in the circumstances in which they find themselves. In an emergency situation, where it is unclear whether or not an unconscious or otherwise mentally impaired patient (which could be due to substance misuse in older people) has refused treatment in advance, it is reasonable not to delay treatment if that would result in a serious risk to the person's life or health (Keene 2015).

If it is unclear whether the individual intended an advance decision to apply in all circumstances (in this case, under the influence of drugs) of impaired capacity, including an apparently unforeseen situation, the advice about 'assessing validity' should be followed and more guidance is available from BMA document (Keene, 2015).

Surgical procedures and ethics in substance misuse

Surgeons should use the least restrictive option and ensure all surrogate decisions are in individual's best interest and any treatments must be governed by Mental Capacity Act. When competence is lost, a fundamental consideration is the 'known past wishes and values' (advanced decision or statement) of the incapacitated person. Patients' relatives can also often provide a view about what the individual would have wanted as people vary in the value they place on surgical treatments. If the surgical treatment is innovative and involves unknown or significant risk, expert opinion and legal advice should be sought before proceeding (BMA 2016).

Lasting powers of attorney (LPA)

Capacituous adults can nominate another person to make healthcare decisions on their behalf in advance of situations in which they themselves lose capacity. If they do so, they are officially known as 'donors' since they are giving decision-making power to someone else. Healthcare professionals should carefully read the wordings of LPA. They need to be aware of the powers that have been granted to the attorney as there are two types of LPA, one to deal with financial affairs and one to deal with personal welfare and medical treatment decisions (BMA 2016).

It is important to note that when the donor has capacity, health and welfare attorneys cannot make treatment decisions on behalf of the donor. Although enduring power of attorney relating to the management of property, financial and general affairs have existed since 1985, they were not applicable to medical decisions. Enduring power of attorney (EPA) was replaced by LPAs in October 2007.

Under the LPA, powers of attorney are legal documents which cover decisions related to financial affairs and also include health and welfare decisions. As well as consenting to or refusing medical treatment, personal welfare decisions can include questions about where the incapacitated person lives, their daily care, their social activities, personal correspondence and arrangements for community care services. They come into effect if the person concerned loses mental capacity or does not want to make decisions about themselves (BMA, 2016).

Role of health professionals regarding attorneys

When healthcare professionals are preparing care plans for patients who have appointed a personal welfare attorney, they must first assess whether the patient has the capacity to agree to the plan. If the patient lacks that capacity, agreement must be sought from the attorney, who should also be consulted about what is in the patient's best interests. The LPA allows attorneys to make decisions to accept or refuse medical treatment on the patient's behalf once the patient is incapable of making the decision, unless the LPA has specified that the attorney should not make those decisions. An attorney cannot consent to treatment if the patient made a valid advance refusal of it, unless the LPA was made after the advance decision and transferred that decision to the attorney. Also, if the patient wanted the attorney to have powers to accept or refuse life-prolonging treatment, the LPA must specifically state that.

If the health team has a significant concern relating to medical treatment decisions taken under the authority of an LPA, the case can be referred for adjudication to the Court of Protection (BMA 2016).

Court approval

Some cases around decisions of mental capacity need to go before the court under the MCA. In older adults with substance misuse, the following may need court approval (BMA 2016):

- When healthcare professionals need to decide on withdrawal or withholding artificial nutrition and hydration from a patient in a persistent vegetative state or a minimally-conscious state
- Cases where there is a doubt or dispute that cannot be resolved locally about whether a particular treatment will be in a person's best interests
- Patients presenting with ethical dilemmas in untested areas.

Independent Mental Capacity Advocates (IMCA)

Family networks of older people with a history of substance misuse may be absent, chaotic, and challenging to engage. A relationship between the older person and their family relatives may not be based on trust or prior knowledge of preferences of the individual. In such situations when individuals who lack capacity and who have no family or friends (including where there is no suitable next of kin), an IMCA can be appointed (BMA 2016).

An IMCA is independent of the healthcare professional making the decision and represents the patient in discussions about whether the proposed decision is in the patient's best interests. An IMCA can also raise questions or challenge decisions which appear not to be in the patient's best interests. Responsibility for instructing an IMCA lies with the NHS body or local authority providing the treatment or accommodation.

It is appropriate to consult an IMCA when:

- an NHS body is proposing to provide, withhold or stop 'serious medical treatment', or
- an NHS body or local authority is proposing to arrange accommodation (or a change in accommodation) in a hospital or care home, and the stay in hospital will be more than 28 days, or the stay in the care home more than 8 weeks.

An IMCA is required to write a report to the NHS body or local authority responsible for the individual's treatment or care. The IMCA's report must be taken into account before the final decision is made (BMA 2016).

Disputes, Court of Protection and court-appointed deputies

The Court of Protection is the final arbiter in England and Wales in relation to the legality of decisions made under the Mental Capacity Act (2005). The equivalent bodies in Scotland and Northern Ireland are the Office of the Public Guardian and the Office of Care and Protection respectively.

Useful resources

The BMA Mental Capacity Tool Kit (BMA 2016) and the GMC Mental Capacity Decision-Making flowchart (GMC 2008) are useful resources for clinicians when dealing with difficult situations including providing care for older people with substance misuse lacking capacity.

‘Communicating and Assessing Capacity: a guide for social work and healthcare staff’ is useful for professionals in Scotland.

Special considerations

Consideration needs to be given to aspects of assessment, treatment and care that are particular to older people, such as maintaining dignity, state of loneliness, mental incapacity, elder abuse and safeguarding. Timing of capacity assessment, conflict between presence of capacity alongside self-neglect and need for medical care and the role of practitioner in encouraging the older person to give up addictions that are harmful to them need particular attention.

Legal position on proxy consent to treatment decisions in England

In addition to adjudicating in relation to specific decisions, the Court of Protection has the power to appoint deputies to assist with continued decision-making. An appointment order sets out the specific powers and scope of the deputy’s authority but there are some general limitations on their authority. Deputies cannot make decisions that they think the person concerned has the capacity to make themselves. They cannot refuse life-sustaining treatment on the individual’s behalf. They cannot go against a decision made by an attorney acting under an LPA granted by the individual before losing capacity. Where concerns arise about whether an attorney acting under an LPA is making decisions in the best interests of the patient, then the Court of Protection can adjudicate (BMA 2016).

Legal position on proxy consent to treatment decisions in Scotland

The Adults with Incapacity (Scotland) Act 2000 (BMA 2016) gives health professionals the authority to do what is reasonable and necessary to safeguard the health of an incapacitated adult. It also makes provision for the appointment of healthcare proxies who should be consulted except if an emergency arises which would make such consultation impractical. The Office of the Public Guardian holds a register of valid proxy decision-makers. The BMA has published separate detailed advice about the Adults with Incapacity (Scotland) Act. Capacitous people over the age of 16 years can appoint a welfare attorney to make medical decisions for them once their mental capacity is lost. Alternatively, the sheriff's court can appoint a welfare guardian with similar powers and these must be consulted about any proposed medical treatment where it is practical and reasonable to do so. Attorneys can consent to treatment on the patient's behalf or refuse it if they do so in accordance with the Act's principles. The Adults with Incapacity (Scotland) Act also obliges health professionals to take account of the views of the patient's nearest relative and primary carer.

Disputes, the Sheriff and the Mental Welfare Commission

In Scotland, if doctors propose a course of treatment for the incapacitated person which the welfare attorney refuses on the patient's behalf, the treatment cannot proceed until an opinion has been obtained from a doctor appointed by the Mental Welfare Commission for Scotland. If the appointed doctor agrees that treatment should be given, it can proceed even if the attorney continues to refuse but any of the parties – including the attorney or any other person with an interest in the patient's welfare – can apply to the Court of Session for a decision. If the welfare attorney asks, on the patient's behalf, for treatment which doctors consider inappropriate, an application can be made to the sheriff to declare whether or not the treatment would benefit the patient.

Legal position on proxy consent to treatment decisions in Northern Ireland

Currently in Northern Ireland, nobody can consent to, or refuse, medical treatment on behalf of an adult who lacks mental capacity and decision-making is governed by the common law.

Health professionals can, however, provide treatment without consent, if it is considered by the clinician in charge of the patient's care to be necessary and in the patient's best interests.

Case study 8

P is a 68-year-old man with a longstanding history of excess alcohol use and more recent worsening cognition. He was lacking capacity and is placed in residential care in his best interests after increasing self-neglect at home. Abstinent for the next 6 months, his cognition (and self-care) appears to improve and he starts to ask to return home. He attends the local hospital for further assessment, and it becomes clear that he understands and retains the risks of doing so – including the risks of going back to drinking again. He is deemed to have capacity and returns home, where he starts drinking again. His cognition deteriorates and his self-care worsens. Reassessment shows that he now lacks capacity and he is placed in care.

After three months of abstinence, his cognition has improved again and he is asking to return home. Although all involved feel that this is an 'unwise' decision, assessment shows that he has regained capacity and he returns home again.

Key points from case study 8:

As is evident from Vignette 3, there are many ethical issues involved. When P lacked capacity, although it is clear he wanted to stay at home, his personal choice with regard to his social care decisions was not taken into account by healthcare professionals in his own best interests. There may be some kind of mental health issue like depression in this case which may be contributing to his alcohol dependence.

As mentioned in the example above, for patients, families and health professionals, there can be different difficulties in making short-term decisions related to medical treatment compared to making long-term ones like choosing a long-term care option.

Substance misuse in relation to dignity, ageism and human rights

Dignity means being treated as a worthy individual, that is, as an individual whose needs are to be considered equally with the needs of the other persons. In the UK, there is a duty on all public authorities to uphold the Human Rights Act 1998 and to intervene proportionately to protect the rights of individuals. Similar legislation is in place in most developed countries. The threats to dignity include ageism, abuse, inequality, disadvantage and discrimination.

Stigmatisation of patients with alcohol problems

This is a common issue seen by professionals and, to an extent, by those using health services. More can be done to ease stigma and prejudice towards people with alcohol issues to allow them to come forward for help more readily and before major damage has been caused.

Healthcare professionals may sometimes be too quick to condemn and make the person feel inadequate because they have a drink problem making it more difficult for the person to ask for help and admit it. When dealing with people with substance misuse, healthcare professionals should be careful as certain duties have been placed on healthcare professionals. These include acting without prejudice, treating all patients fairly and without prejudice irrespective of variations in their life style, or other potentially discriminatory factors.

Substance misuse in Black and Minority Ethnic (BME) background and Provision of Culturally Appropriate Services

Older people from black and minority ethnic (BME) backgrounds face major challenges in accessing substance-misuse services. These may include language barriers, social stigma as well as cultural and family values. Individuals from some BME backgrounds have higher levels of alcohol misuse and resulting health problems than the general population, such as older Irish and South Asian (Sikh) male migrants to the United Kingdom (Rao 2006). Both alcohol misuse and ethnicity can contribute to social disadvantage.

In the United Kingdom, the clustering of first-generation Irish people in areas of socioeconomic deprivation may explain, at least in part, their higher prevalence of alcohol use (Rao et al, 2008). Diversity also applies to older lesbian, gay, and bisexual alcohol misusers.

Each racial/ethnic group is not homogenous, and may include many subcultures that may be influenced by cultural values such as traditional beliefs, family structure, lifestyle preferences, gender roles, degree of assimilation, and religious belief. These need to be borne in mind by various health professionals and during service developments.

Wills and testamentary capacity in relation to substance misuse

Increasingly, doctors are being asked to determine testamentary capacity and this is often requested by solicitors. Solicitors will usually follow a 'golden rule' – that the making of a will by an older person, or one who has suffered a serious illness, ought to be witnessed or approved by a medical practitioner who 'satisfies himself of the capacity and understanding of the testator, and records and preserves his examination and finding'.

The doctor should be able to explain how they made an assessment of the testamentary capacity of the testator and could be challenged in writing or in the witness box and asked to explain their experience

and expertise in assessing testamentary capacity, as well as explaining how they came to their opinion.

The general principles of mental capacity assessment should be applied. Specific additional considerations must be borne in mind and these are explained in an MDU document (MDU 2017).

The BMA and the Law Society have also published guidance for doctors and lawyers on assessment of mental capacity, which includes helpful points clarifying the approach to assessing testamentary capacity (Keene, 2015).

Responsibility of health professionals in reporting substance misuse in colleagues

Various additional responsibilities have been placed on healthcare professionals in relation to patient safety from actions of others, for example protecting patients if it is thought that a colleague could be causing harm, for instance, by means of substance misuse. The relatively easier access for healthcare professionals to some of substances of misuse may potentially make them prone to substance misuse especially in periods of stress. Colleagues are expected to identify such situations and act on them to highlight any potential harm to the professionals as well as patients.

Alcohol misuse and dementia

It is important to identify substance misuse issues early and proactively in the older adult population. Clinicians may decide on the best interests of these patients but more focus should be placed on helping this group make their own decisions and enhance their autonomy. Awareness of the issues like higher prevalence of dementia in older people with alcoholism can help healthcare professionals when doing mental capacity assessments. Also, older people with dementia and in whom alcohol may be the cause of or contribute to dementia should not be denied treatment or support for both conditions (Wadd et al, 2014).

Mental Capacity Act and research

In England and Wales, the Mental Capacity Act not only covers medical treatment decisions but also makes provision for mentally incapacitated people to be involved in research. (Research is covered separately in this guidance.) In Scotland, the Adults with Incapacity (Scotland) Act 2000 also regulate the involvement of incapacitated adults in research. In addition, the 2004 Medicines for Human Use (Clinical Trials) Regulations address proxy decision-making for

participation in medical research as well as advance consent or refusal by the individual prior to the onset of incapacity. In Northern Ireland, there is no statute on this subject. However, English case law, which sets out criteria for advance refusals, is likely to be followed.

Mental Capacity Act and the Mental Health Act interface

There may be circumstances in which either legal framework (MCA or MHA) may apply and the question as to which act applies will be for the judgement of the health professional.

However, as a rule of thumb, if the patient retains capacity the MCA cannot be used. If the treatment is for a physical condition, then the MHA is irrelevant (unless there is a direct relationship between the mental disorder and physical condition, such as poor nutrition from depressive disorder). If the treatment is for a mental disorder and the patient retains capacity, the MCA cannot be used. Where detention is deemed necessary, the MHA must be used provided that the relevant grounds are met (BMA 2016). At the time of writing, there is currently an independent review of the MHA (Department of Health and Social Care, 2017) being conducted.

Elder abuse vs self-neglect due to substance misuse

Direct abuse and self-neglect by older people under the influence of any drug or alcohol can be difficult to differentiate but both situations produce two separate yet interrelated sets of behaviours and interactions. One important difference is that in self-neglect (which is the result of the older person refusing care), there is often no other evidence of abuse. Neglect which can be intentional or unintentional, is a common form of abuse. Failure of caregivers to fulfil their care-giving responsibilities (neglect through omission) is something of which all healthcare professionals should be aware while caring for older people.

Self-neglect is a failure to provide for one's own essential needs and it is often associated with risk factors like mental health problems, including dementia, and depression. Alcohol use has been documented to be associated with elder abuse (World- Health Organization 2006) and some pointers which can help identify this are; if older people are financially dependent on relatives, alcohol use by older people can make carers neglect them and this in turn can encourage them to drink more which makes them prone to financial abuse. Victims of abuse or partner violence could sometimes resort to using alcohol as a coping mechanism (World Health Organization, 2006) and hence

awareness of this association may help improve management in this alcohol dependent older adults (Sullivan et al, 2011).

WHO states that 'at both national and international levels, health organisations have a key role in advocating for policies that address the relationships between alcohol use and elder abuse and in doing

Case study 9

A 72-year-old retired teacher has been living alone in her own house since the death of her husband one year ago. She was referred to old age psychiatry services because of progressive memory changes over approximately two years.

Other concerns included deteriorating self-care, poor appetite, weight loss and several falls.

She is assessed at home with his daughter present; the kitchen contained several empty gin bottles, as did the dustbin.

Her daughter comments that she has had episodes when she appears much more muddled over her finances and that she is still driving, which causes her some concern. She remains independent with all domestic activities but is in arrears on her rent, and money is often "missing" from her purse.

Her daughter reports that both she and her late father drank a bottle of wine per day between them for more than five years, but that her mother switched to spirits after her father died.

There is no evidence of any other mental disorder but there is history of gout, hypertension and Type II diabetes mellitus.

She smokes 20 filtered medium tar cigarettes a day but has no other substance use or misuse.

At assessment, she is found to have a mild to moderate degree of cognitive impairment (Mini-Mental State Examination (MMSE) score of 20 out of 30) and the clinical picture is felt to be consistent with alcohol-related dementia.

There is no evidence of physical dependence, but the assessing psychiatrist feels that her drinking was undoubtedly contributing to her memory impairment.

Key points from case study 9:

- History from family and close friends play an important part in management as patients with substance misuse may not disclose all the relevant information themselves.
- Elder abuse could easily be missed by healthcare professionals if the diagnosis is not looked for in every older adult.

Principles of medical ethics

All four principles of medical ethics; autonomy, beneficence, non-maleficence and justice are relevant to older people, with or without substance misuse.

The principle of autonomy means respecting the choices and wishes of people who possess decisional capacity, along with protecting those who lack this capacity.

End of life care issues in older people with substance misuse

Substance misuse in older people is steadily going to increase pressure on palliative care services as chronic and life threatening conditions due to drugs and alcohol is on rise (Galvani et al, 2016). More work needs to be done to help support clinicians providing end of life care to be able to identify this complex group of patients early. Development of home-based services to prevent hospital admissions is another challenge as identifying 'dual diagnosis' and treating older people with social, physical and other complex issues like safeguarding and mental capacity needs different approach (Crome & Rao, 2017) along with lot of resources needed for training and planning. Advance care planning models encourage people to reflect on their fears and concerns (De Vleminck & Deliens, 2018) and may be an ideal opportunity for clinicians to proactively include topic of substance misuse related complications on the care plans.

Joint working of palliative care teams and substance use services will enable the development of integrated services to provide effective care to older people with chronic conditions due to both licit and illicit drug use.

Future challenges

The ethical and legal issues that are relevant to an ageing individual, or an ageing society are multifaceted and complex, and require consideration of how all people are connected in society and across the life span. However, it is likely that the older people of the future will have a stronger sense of entitlement, will be better educated, are likely to be healthier until later in life and will inevitably occupy differing roles in society than previous cohorts. The ethical and legal issues that concern older people with substance misuse as a population will evolve with them. The need for further research in this area is a challenge for the future (Arora et al, 2015) but recruiting older people with substance misuse in any research will need further guidance and training. Training around ethical principles to all healthcare professions should form the basis of patient-centered care 'Older people deserve

no less' (Crome & Arora, 2018) and this ethos should be promoted in society. Professionals should aim to provide optimal care which considers the priorities and preferences that older substance misusers and their families express. This not only takes account of the medical conditions and available technical interventions, but also the meaning of the illness to the patient and their perception of the value of the potential treatment at a particular point in their lives (Gawande 2014; Kalanithi 2017).

Research and development

Key messages

- For too long research into this subject has been ignored.
- Older people need to be included in addiction research as they are under-represented in research studies.
- Barriers to recruitment and retention of older people in research studies include lack of motivation, poor health, sensory impairment, cognitive impairment, mood disorders, mobility problems and frailty. Evidence for strategies to enhance participation is limited.
- Research will inform engagement and retention with treatment and service responses.
- Greater understanding of the economic impact of alcohol and other substances on individuals, families, communities and society is needed.

Introduction

The response of the public, media, practitioners and academics, to the first report *Our Invisible Addicts*, was almost overwhelming and unanticipated (RCPsych, 2011). Since its publication in 2011, there have been several further developments. We have followed this up by producing an Information Guide (RCPsych 2015), revising RCPsych CPD modules, organising several well attended CPD update courses, writing journal articles, invited to conferences, and publishing a book which collates the most up-to-date international research (Crome et al 2015). All these activities comprised components that considered research and development.

Recent research has mainly been in epidemiology but far more needs to be undertaken before practitioners can face substance misuse problems in older people with confidence. There is sufficient information about what is effective to begin to build detection and intervention into treatment models that are already functioning within the key specialist teams (e.g. addiction, geriatric medicine and

psychiatry) to implement what is known. Brief intervention models suitable for primary care are needed. A strategy to secure funding for further research is important so as to stimulate questions and generate some practical answers.

Who is this group?

As has been outlined in previous chapters in this report, older substance misusers are a very heterogeneous group. Further examination of the evolution of substance use across the lifespan and its association with ageing is needed. Research which aims to characterise what distinguishes older substance users from younger people, will point to how we can adapt, tailor and develop preventive and treatment interventions. Understanding their characteristics such as physical and mental health, life circumstances, status and personal quality of life, stigma, socioeconomic status, culture, ethnicity, activities of daily living and difficulties in accessing services are still subjects for research which will impact on treatment. We need to investigate to what extent older people suffer from gambling, internet and sex 'addiction'.

Emphasis should be placed on the baby boomer population aged 50 and over, from both socio-cultural and 'biological ageing' perspectives. This will, in turn, pose challenges to all of the areas to be explored (not least of which will be the difference between those in and not in employment). The economic impact of alcohol and other substances needs further examination: what are the costs to individuals, families, community and society, and how is this balanced by the revenue generated?

Public health messages

There needs to be greater recognition of the immensity of the problem with detailed research and publication of statistics widely marketed and disseminated.

Development of effective strategies to reduce risk involves recognising that addiction occurs in older people and that there is considerable stigma associated and many misconceptions. Older substance misusers feel 'forgotten', 'dismissed' or a 'lost cause' (Corrigan et al 2017; Ginn & Clark 2017; Matheson & Liddle 2017). Motivation to respond to advice or engage with treatment aimed at preventing the onset or course of substance misuse may be diminished.

What guidance do we give older people with regard to appropriate alcohol consumption? What is the best way to deliver health education

to different age groups? This involves better understanding about the physiological, psychological and social differences in ageing over a wide range of ages. This potentially spans from about 40 years old to over 90 years old.

Complexity of need

What are the consequences and future needs of this population? Older substance misusers are highly complex so an appreciation of the interplay of the co-occurrence of physical and mental health issues, and social vulnerabilities such as isolation, is pivotal to effective treatment. Complex clinical presentations are not exceptional; they may be atypical, subtle, and serious because they are compounded by different substances including prescribed medications, mental and physical conditions, and social context. These are also worthy of exploration.

Involvement of patients, carers and providers

Patients and carers have a unique perspective in lived experience of substance misuse. Understanding the attitudes, views and perceptions of patients, carers and providers is essential to attracting people into treatment that is adapted to their needs.

Better understanding of reasons why older people use or misuse substances, how they explain their use and the meaning it has in their lives, can support modification of their behaviours. Engagement and retention of older subjects in research including collaboration in the development of projects is central to this process (Neale et al 2017).

Clinical research

The focus needs to be on both dependent use and harmful behaviours. For example, we need to consider what constitutes dependence in older people and how we can diagnose it.

As has been mentioned earlier in this report, similar methodologies in clinical trials would enhance the confidence with which findings could be implemented. Standardisation of research protocols, e.g. instruments developed for older people, stratification by age range, clear definitions of what constitutes harmful, hazardous excessive, binge, and dependence in older people. Attention needs to be paid

to sample size, sensible length of follow-up, specific age range with adaptation to needs. A reasonable length of follow-up is necessary, especially as some people may survive into very old age.

Interventions require clear descriptions and both researchers and practitioners require training with manuals and regular feedback. Intensity, duration of treatment and aftercare in the community, as well as methods of delivery, need to be explained and considered. Effectiveness of medications, whether established in younger people or those that are new and promising, are another strand.

The barriers that lead to low uptake of interventions, maintaining abstinence or aftercare monitoring, are important areas for study. In addition to some of the recognised reasons for non-participation, older substance misusers may be frail and burdened with multiple morbidities (e.g. mobility, mood and memory) that severely limit their capacity to participate in the demanding nature of research (Cherubini & Gasperini 2017).

Service provision

Achieving the provision of appropriate services translates into a foundation for clinical research. Although strides have been made in investigating treatment for older substance users, and demonstrating that benefit does accrue, this is far from adequate. Hence, the development of, and research into, models of service delivery is greatly hampered. There are few models of effective age specific service provision.

Whether to introduce age-specific or mixed age groups is one question. Another is whether and how best to integrate, collaborate or coordinate a variety of services: addiction, old age psychiatry, geriatric medicine, and primary care. Naturalistic studies from services offer a way forward to examine treatments, outcomes and programmes.

Given the state of addiction services nationally, the issue is how to realistically develop service models that can be evaluated. Apart from collaboration and coordination of relevant professionals in 'virtual teams', there are also important areas such as pain management and end of life care which require very specific expertise. There is very limited evidence on cost effectiveness of substance misuse treatment in older people (Coulton et al 2017).

The use of new technologies will no doubt impact on these issues in the future, so this is a further avenue for research and development.

Conclusion

Overall, we recommend that there needs to be a shift in strategy so that older substance misusers are not discriminated against whether it is in the clinical, research or policy domains. This includes the following:

- Enhance and expand the evidence base by encouraging, supporting and funding research and research training about older people with substance problems.
- Use an array of strategies to engage and retain older subjects in research including collaboration in the development of projects.
- Include older people in all research projects whether qualitative or quantitative, epidemiological, clinical and prevention studies.
- Place greater emphasis on cannabis (including medical prescribing of cannabis), opioid prescription drugs and gabapentinoids while not ignoring alcohol, tobacco (including e-cigarettes) and other illicit drugs.
- Use clinically meaningful outcome measures based on quality of life and independence, including known associations with substance misuse such as mood disorders, cognitive impairment, pain, falls and social factors such as retirement and bereavement.
- Undertake rapid reviews of important research publications to comment on relevance to older people in a manner that is useful to the wide range of practitioners involved in the care of this heterogeneous group.

Given the almost universal limitation of resources, collaboration internationally is one way in which seemingly infinite problems that need solutions can be collated.

Conclusion

Key messages

- The older substance misuser is poorly represented in the range of policy initiatives, though this may be changing very gradually.
- Greater value needs to be placed on the requirements and wishes of older substance misusers.
- Diverse approaches are required to minimise the health, social and economic consequences for a population of “baby boomers” who have the fastest increase in rates of substance misuse in the population. These include raising awareness, limiting availability of, and access to, substances, and improving access to care.
- Campaigning is required to reduce the stigma associated with alcohol and substance misuse among the public and professionals.
- Promote greater recognition of the scale of the problem by wider dissemination of up-to-date research.
- Evaluation of the economic impact of substance use in older people should be initiated.
- Given the distinctive features of substance misuse in older people, identification of how some of their special health and social needs differ from younger adults is reflected in policy.
- Due to the strong relationship between substance misuse and mental and physical health in older people, acknowledgement that management of complex comorbidities are the norm needs to be recognised in policy development.
- Approaches to treatment and rehabilitation need to be tailored and adapted from those found to be effective in younger people, and development of novel approaches need to be prioritised.
- Provision of more addiction services focused on the needs of older substance misusers is needed.
- Enhance training at all levels including training more addiction psychiatrists and old age psychiatrists with specialist knowledge to manage the specific needs of older substance misuser.

- Due to a dearth of research, there is scarce specific evidence to inform policy decisions in older people who misuse substances. There is a lack of research on policies that specifically target the older person's substance misuse and associated harms.
- To meet older substance misusers' needs, concerted effort is required by stakeholders including the National Health Service, independent sectors, mental health charities and other relevant charitable organisations, older people themselves, and financial support and direction by government to develop coherent integrated policies.
- A national strategy focused on older substance misusers should be developed which is imaginative, viable, sustainable and evidence based.

It is beyond the scope of this document to outline in detail the policies, guidelines and protocols. We use the term policy broadly to include national strategy, local plans, clinical guidelines and medical protocols. We highlight the contributions of some policies which make (usually very limited) reference to older substance misusers, and which give a flavour of the issues. Some have been discussed earlier in the document and comprise clinical guidelines, service models, training and educational programmes and public health initiatives. Clinical guidelines recognise and prioritise screening and assessment, forming non-judgemental therapeutic alliances; protocols; information; advocacy; patient involvement; general healthcare; evidence-based practice or good practice for the array of available treatment interventions. Service model policies have to consider definition of access criteria including age; transfer between services; joint working and close liaison between professionals; co-morbidity and dual diagnosis; extending community-based services (home support, accommodation); and match staff to the needs of the older population.

For example, the RCPsych has endeavoured to raise awareness and educate the public and practitioners, and policymakers. This has been done through a variety of methods, e.g. developing a competency-based curriculum for training addiction psychiatrists and old age (RCPsych CR 173), by suggesting that postgraduate doctors in other medical specialties be trained (Morris-Williams Z 2012), by publishing reports (Invisible Addicts, 2011); by producing guidance for practitioners (RCPsych, 2015), providing annual updated CPD training courses, online CPD modules and information leaflets.

Many members of the Royal College of Psychiatrists contribute to national policy such as NICE guidelines and Advisory Council on the Misuse of Drugs reports, Department of Health and Public Health England guidance on, for example, clinical management and commissioning, as well as to other policies related to older people

and substance misuse (DH 2017). Members of the Royal College of Psychiatrists have also contributed to other national and international policy initiatives (Babor et al 2010a; Babor et al 2010b; Macgregor 2015).

There have been some important initiatives over the last few years. It is well known that availability, accessibility and affordability are central to the public health burden of alcohol misuse. The benefits of MUP are well-recognised and have been discussed in the *Public health and substance misuse* chapter. Recent implementation of minimum unit pricing (MUP) in Scotland (Scottish Government, 2012) has now been followed by a commitment by the Welsh Government to introduce MUP through the Public Health (Minimum Price for Alcohol) (Wales) Bill (Welsh Government, 2017). Northern Ireland has looked favourably upon such a policy for future implementation. However, there are no clear plans from Westminster to re-consider its initial commitment to consider such an initiative (Home Office, 2012). As noted in the chapter on *Research and development*, further detailed understanding of the impact of alcohol on the economy is required.

Given that home drinking is more common in older people (Nicholson et al, 2017), reducing availability to cheaper and stronger alcohol is paramount. Changes to accessibility through reducing the number of 24-hour off-licence premises also requires careful consideration.

An Alcohol Research UK investigation (2011) concluded that there are different stressors and risk factors in older people, compared to younger adults that initiate and maintain use of alcohol and relapse of alcohol abuse. The report also made specific recommendations addressing staff working with older people who abuse alcohol and other substances, commissioners who approve services for these people and for prevention programmes that should address risk factors and strengthen protective factors that can help older people.

In 2014, the 'Rethink Good Health' funding programme (Big Lottery Fund, 2014) led to a UK-wide initiative termed 'Drink Wise Age Well'. This aimed to 'help inform policy and practice about preventing alcohol-related harm in later life, improve health and wellbeing of people aged 50 and over who are at risk of developing alcohol problems and help build more effective services aimed at alcohol-related issues' (Drink Wise Age Well 2016).

However, our summation of the wider contributions nationally and internationally to date indicates that the older substance misuser is in general poorly represented in policy initiatives and does not have high profile, though this may be changing very gradually (MacGregor 2015; Hingson and Ting-Lai 2015; Givel 2015). This might partly be to do with the relative lack of research generated in the UK. It might also reflect attitudes and a culture that is negative, stigmatising and prejudiced. Of course, some policies which are generic are still likely

to have relevance to the older population. Crucial to design and implementation of a cohesive policy response is the acceptance of responsibility, including provision of funding by government.

We have not had sight of the working group established by the Advisory Council on the Misuse of Drugs (ACMD) to review the evidence that exists around problems for ageing drug users (aged over 45 years), to map the numbers of older drug users in the UK and draw on UK and international evidence to establish the current and future needs of this cohort. However, in 2017 the Advisory Council for the Misuse of Drugs (2017) made a number of recommendations including:

- Drug and alcohol misuse services should be mandated within local authority budgets and/or the commissioning of drug and alcohol treatment placed within NHS commissioning structures.
- Transparency and clearer financial reporting on local drug misuse treatment services should be increased to challenge local disinvestment or falls in treatment penetration.
- Links between local healthcare services and local drug treatment systems should be strengthened.
- Commissioning contracts should be five to ten years in length.
- Research infrastructure and capacity within the drugs misuse field should be addressed.

To these we would add that greater value needs to be placed on helping this often highly stigmatised and marginalised population, where there is a clear indication from epidemiological and demographic trends that older people are the age group at highest rate of rise in prevalence of substance misuse. Such data needs to be translated in practice. The diverse assortment of available and relevant options needs to be examined (Babor et al 2010a; Babor et al 2010b).

This incorporates accessibility, availability, tax and pricing; improving the social environment to achieve better social cohesion, driving, marketing, education, and treatment that is relevant to the older population. Evidence-informed choices which are selected as part of a coherent plan or strategy developed by a group of stakeholders can then be made. Concerted effort is needed by stakeholders including National Health Service, independent sectors, mental health charities and other relevant charitable organisations; a government with strong political will to reduce availability, reduce access and raise awareness of the health-related catastrophe along with the social and economic impact by alcohol and substance misuse in older people.

Treatment services, though extremely important and central to our profession, are just one component of a successful policy. We

recognise that provision is, of course, influenced by wider social and cultural issues. There are very few designated services to cater for the needs for older people with substance misuse and serve the specific needs of older people. Similarly most dual diagnosis services do not care adequately for older people. Reviewing the need for improvements in addiction services for the older patient has to be considered on the backdrop of increasing reductions in funding. Many substance misuse services are no longer provided by the National Health Service, and are delivered by the independent sector and charities, with varying quality (Drummond 2017). A recent review from the Care Quality Commission underlined the poor quality of detoxification services CQC (2017). Since NHS staff may well shrink in the next few years, some thought needs to be given about the relevant professional development of already existing workforces that encounter older people with complex problems – general practice, community nursing, accident and emergency and social work.

Pertinent to this report, is that there is evidence of age discrimination. The Drink Wise Age Well project released a report 'Calling Time: Addressing ageism and age discrimination in alcohol policy, practice and research' (Wadd et al 2017). The report highlights evidence of age discrimination in alcohol policy, practice and research following a literature review and a survey of professionals, interviews and focus groups with older adults. It is not an uncommon practice in alcohol services to prioritise younger patients and discriminate against older people, although such discrimination is illegal under the Equality Act 2010.

The report states that 'this discrimination is likely to be due to pervasive misconceptions, attitudes and assumptions based on stereotypes, for example older adults are incapable of change or alcohol problems predominantly affect young people'. This report makes many recommendations for national organisations both in mainstream and charity sectors, commissioners and researchers and policymakers. It also calls for efforts to address the range of issues highlighted and ensure recognition and appropriate responses for older people with alcohol problems.

Changing public attitudes, especially perhaps the views of older people themselves, is a key component. Public campaigning to reduce the stigma associated with alcohol and other substance problems is an essential component. The voice of older people must be heard in the development of policy. There are new challenges with increasing longevity. How do workplace policies manage drug and alcohol problems in the older employee? What kind of distribution outlets would protect older people from excessive drinking? Are smoking harm reduction measures such as smokeless tobacco and e-cigarettes beneficial to older smokers? Where do older people wish to be treated – with younger adults or in age-segregated services? If risk factors for the development for addiction differ in older people

differ from young adults, what are the implications for public health and treatment policy? To what extent do or should mass media campaigns, e.g. anti-tobacco counter-marketing, target on the older substance-misusing population? How effective are peer self-help organisations in this population? Would this population benefit from restrictions on over-the-counter medication?

As discussed in the *Research and development* chapter, there is a compelling requirement for more research of multiple types in this complex group with chronic conditions (Scottish Drugs Forum 2017). Assisting workforce expansion in addition to clinical and management supervision and support, and training programmes, is also much needed. Health and social care as well as criminal justice agencies need to plan together to spell out roles, responsibilities and goals through a range of mechanisms, be they strategies, practice briefings or guidelines. Implementing rational policies requires astute advocacy and mobilisation of a range of resources. Of course, financing these goals is what will ultimately make possible the choices to provide a higher priority to this group (ACMD 2017).

In order to further develop evidence-informed policies in the future, MacGregor (2015) recommends the following:

‘To adapt policies to both a changing reality and altered perceptions of the problem, a series of linked activities would need to be initiated:

- Recognition of the need or problems, supported by collecting evidence
- Articulation of a justification for the development of policy, citing values or pragmatism
- Identification of policy options
- Formal adoption of policy recommendations and acceptance of responsibility
- Detailed policy design
- Implementation and evaluation.’

What is clear it that we are a long way from achieving these goals. Older people are given very little primacy in policy development. However, it does provide a framework for improvement. What is needed is a national strategy that is imaginative and viable.

References by chapter

Introduction

- Bhatia, U., Nadkarni, A., Murthy, P., et al. (2015) Recent advances in treatment for older people with substance use problems: An updated systematic and narrative review. *European Geriatric Medicine*, 6, 580-86.
- Crome, I.B. & Crome, P. (2018) Alcohol and age. *Age and Ageing* <https://doi.org/10.1093/ageing/afx191> (Accessed 20 Jan.18)
- Crome, I.B., & Rao, R. (2018) Older people with substance problems. In *Oxford Textbook of Geriatric Medicine* (eds J-P. Michel, B.L. Beattie, F.C. Martin & J.D. Walston): 1065–71. Oxford University Press.
- Crome, I., Wu, L. T., Rao, R. T., & Crome, P. (2015a) Substance use and older people. John Wiley & Sons.
- Crome, I. B., Rao, R., & Crome, P. (2015b) Substance misuse and older people: better information, better care. *Age and Ageing*, 5, 729-31.
- Gallinger K Ethically Speaking. *Toronto Star* 23 Jan 2015.
- Hamilton I (2018) Words alone cannot reduce the stigma drug users feel 360:k309
- Rao, T., & Jones, K. (2018) Alcohol and substance misuse. In *Oxford Textbook of Old Age Psychiatry*, 3rd edition (eds T.Dening. A.Thomas, J-P. Taylor & R. Stewart) Oxford University Press. In Press.
- Rao, T. (2018a) *Drug and alcohol misuse. In Seminars in Old Age Psychiatry, 2nd Edition* (eds- R. Butler & C. Katona). Cambridge University Press. In Press.
- Rao, T. (2018b) *Alcohol and Other Drugs of Addiction*. <https://www.minded.org.uk/> In Press.
- Rao, R.T. & Draper, B. (2018). Addressing alcohol-related dementia should involve better detection, not watchful waiting. *British Journal of Psychiatry*. In Press.
- Rao, R., & Roche, A. (2017) Substance misuse in older people *British Medical Journal*, 358, j3885
- Rao, R. (2016). *Cognitive impairment in older people with alcohol use disorders in a UK community mental health service. Advances in Dual Diagnosis*, 9, 154-8.
- Rao, R. and Crome, I. (2016). *Alcohol misuse in older people*. *BJPsych Advances*, 22, 118-26.
- Rao, R., Crome, I. B., & Crome, P. (2016). *Managing older people's alcohol misuse in primary care*. *British Journal of General Practice* 66, 6-7.
- Royal College of Psychiatrists (2015) *Substance Misuse in Older People. An Information Guide*. London: Royal College of Psychiatrists. https://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People_an%20information%20guide.pdf (Accessed 20 Jan. 2018)
- Royal College of Psychiatrists (2011). *Our Invisible Addicts. First Report of the Older Persons' Substance Misuse Working Group of the Royal College of Psychiatrists*. London: Royal College of Psychiatrists. <http://www.rcpsych.ac.uk/files/pdfversion/cr165.pdf> (Accessed 20 Jan.2018)
- Rao, T. (2014). *The role of community nursing in providing integrated care for older people with alcohol misuse*. *British Journal of Community Nursing*, 19, 80-84.
- Rao, R., Schofield, P., & Ashworth, M. (2014) Alcohol use, socio-economic deprivation and ethnicity in older people *BMJ Open* 5, e007525.
- Wadd, S., & Rao, T. (2017). Substance Misuse in Older Adults. In *Addiction: Psychology and Treatment* (eds-P. Davis, R.Patton) S.Jackson):172-88. John Wiley and Sons.

Public health and substance misuse in older people

- Advisory Council on the Misuse of Drugs (2016) Advice on Pregabalin and Gabapentin. <https://www.gov.uk/government/publications/advice-on-the-anticonvulsant-drugs-pregabalin-and-gabapentin> (Accessed 29 Jan. 2018)
- Aira, M., Hartikainen, S. & Sulkava, R. (2008) Drinking alcohol for medicinal purposes by people aged over 75: a community-based interview study. *Family Practice*, 25, 445-49.
- Andreas, S., Schulz, H., Volkert, J., et al. (2017) Prevalence of mental disorders in elderly people: the European MentDis_ICF65+ study. *British Journal of Psychiatry*, 210, 125-31.
- Angus, C., Holmes, J., Pryce, R., Meier, P. & Brennan, A. (2016). Model-based appraisal of the comparative impact of Minimum Unit Pricing and taxation policies in Scotland. An adaptation of the Sheffield Alcohol Policy Model version, 3. https://www.sheffield.ac.uk/polopoly_fs/1.565373!/file/Scotland_report_2016.pdf (Accessed 29 Jan. 2018)
- Atkinson, R.M. (2002) *Alcohol use in later life: scourge, solace, or safeguard of health?*, *American Journal of Geriatric Psychiatry*, 10, 649.
- Bacharach, S.B., Bamberger, P.A., Sonnenstuhl, W.J. & Vashdi, D. (2004) Retirement, risky alcohol consumption and drinking problems among blue-collar workers. *Journal of Studies on Alcohol*, 65, 537-45.
- Bachi, K., Sierra, S., Volkow, N.D., et al. (2017) Is biological aging accelerated in drug addiction? *Current Opinion in Behavioral Sciences*, 3, 34-9.
- Bartels, S.J., Blow, F.C., Van Citters, A.D. & Brockmann, L.M. (2006) Dual diagnosis among older adults: Co-occurring substance abuse and psychiatric illness. *Journal of Dual Diagnosis*, 2, 9-30.
- Beynon, C. M., Roe, B., Duffy, P., & Pickering, L. (2009). Self reported health status, and health service contact, of illicit drug users aged 50 and over: a qualitative interview study in Merseyside, United Kingdom. *BMC Geriatrics*, 9, 45.
- Blazer, D.G. & Wu, L. (2009) The epidemiology of substance use and disorders among middle aged and elderly community adults: national survey on drug use and health. *American Journal of Geriatric Psychiatry*, 17, 237-45.
- Bobo, J.K. & Greek, A.A. (2011) Increasing and decreasing alcohol use trajectories among older women in the US across a 10-year interval. *International Journal of Environmental Research and Public Health*, 8, 3263-76.
- Bobo, J.K., Greek, A.A., Klepinger, D.H. & Herting, J.R. (2013) Predicting 10-year alcohol use trajectories among men age 50 years and older. *American Journal of Geriatric Psychiatry*, 21, 204-13.
- Bolton, J.M., Robinson, J. & Sareen, J. (2009) Self-medication of mood disorders with alcohol and drugs in the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Affective Disorders*, 115, 367-75.
- Brennan, P.L., Schutte, K.K., SooHoo, S. & Moos, R.H. (2011) Painful medical conditions and alcohol use: A prospective study among older adults. *Pain Medicine*, 12, 1049-59.
- Brennan, P. L., SooHoo, S., Lemke, S., & Schutte, K. K. (2016). Alcohol use predicts 10-year depressive symptom trajectories in the health and retirement study. *Journal of Aging and Health*, 28, 911-92
- Britton, A. & Bell, S. (2015) Reasons why people change their alcohol consumption in later life: findings from the Whitehall II cohort study. *PloS One*, 10, e0119421.
- Carney, M.A., Armeli, S., Tennen, H., Affleck, G. & O'neil, T.P. (2000) Positive and negative daily events, perceived stress, and alcohol use: a diary study. *Journal of Consulting and Clinical Psychology*, 68, 788.
- Chang, C., Hayes, R.D., Broadbent, M., et al. (2010) All-cause mortality among people with serious mental illness (SMI), substance use disorders, and depressive disorders in southeast London: a cohort study. *BMC Psychiatry*, 10, 77.
- Chatterjee, D., Iliffe, S., Kharicha, K., et al (2017) Health risk appraisal in older people 7: long-acting benzodiazepine use in community-dwelling older adults in London: is it related to physical or psychological factors? *Primary Health Care Research & Development*, 18, 253-60.
- Chesney, E., Goodwin, G.M. & Fazel, S. (2014), Risks of all cause and suicide mortality in mental disorders: a meta review. *World Psychiatry*, 13, 153-60.
- Chiappini, S. & Schifano, F. (2016), A decade of gabapentinoid misuse: an analysis of the European Medicines Agency's 'suspected adverse drug reactions' database. *CNS Drugs*, 30, 647-54.

- Chou, K.L., Mackenzie, C.S., Liang, K. & Sareen, J. (2011), Three-year incidence and predictors of first-onset of DSM-IV mood, anxiety, and substance use disorders in older adults: results from Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*, 72, 144-55.
- Colliver, J.D., Compton, W.M., Gfroerer, J.C. & Condon, T. (2006) Projecting drug use among aging baby boomers in 2020. *Annals of Epidemiology*, 16, 257-65.
- Coyle, C.E. & Dugan, E. (2012) Social isolation, loneliness and health among older adults. *Journal of Aging and Health*, 24, 1346-63.
- Crane, M., Warnes, A.M. & Coward, S. (2012), Preparing homeless people for independent living and its influence on resettlement outcomes. *European Journal of Homelessness* 6 http://www.feantsaresearch.org/download/ejh6_2_article11839062786687222298.pdf (Accessed 29 Jan. 2018)
- Crome, I., Li, T., Rao, R. & WU, L. (2012) Alcohol limits in older people. *Addiction*, 107, 1541-43.
- Crome, I., Li, T., Rao, R. & WU, L. (2012), Alcohol limits in older people, *Addiction*, 107, 1541-43.
- Davis, L., Uezato, A., Newell, J.M. & Frazier, E. (2008) Major depression and comorbid substance use disorders. *Current Opinion in Psychiatry*, 21,14-18.
- De Wilde, S., Carey, I.M., Harris, T., et al. (2007) Trends in potentially inappropriate prescribing amongst older UK primary care patients. *Pharmacoepidemiology and Drug Safety*, 16, 658-67.
- Department of Health (2016) UK Chief Medical Officers' Low Risk Drinking Guidelines. London: Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/545937/UK_CMOs_report.pdf (Accessed 17 Nov. 2017)
- Devanand, D. (2002), *Comorbid psychiatric disorders in late life depression*. *Biological Psychiatry*, 52, 3, 236-42.
- Dhalla, I.A., Persaud, N. & Juurlink, D.N. (2011) Facing up to the prescription opioid crisis. *BMJ: British Medical Journal* (Online), 343. <http://www.bmj.com/content/343/bmj.d5142> (Accessed 29 Jan. 2018)
- European Monitoring Centre for Drugs and Drug Addiction (2008) The State of the Drug Problem in Europe. http://www.emcdda.europa.eu/system/files/publications/971/EMCDDA_AR08_en.pdf (Accessed 29 Jan. 2018)
- European Monitoring Centre for Drugs and Drug Addiction (2010) Annual report on the State of the Drugs Problem in Europe. http://www.emcdda.europa.eu/publications/annual-report/2010_en (Accessed 29 Jan. 2018)
- Falaszchetti, E., Malbut, K., & Primatesta, P. (2002), The general health of older people and their use of health services in Health Survey for England, ed. Prior,G., & Primatesta,P., The Stationery Office, London.
- Farias,J.C., Porter, L., McManus, S., Strang, J., Hickman, M., & Reed, K. (2017) Prescribing Patterns in Dependence Forming Medicines. National Centre for Social Research, London. http://phrc.lshtm.ac.uk/papers/PHRC_014_Final_Report.pdf (Accessed 29 Jan. 2018)
- Fink, A., Hays, R.D., Moore, A.A. & Beck, J.C. (1996) Alcohol-related problems in older persons: Determinants, consequences, and screening. *Archives of Internal Medicine*, 156, 1150-56.
- Gilson, K., Bryant, C. & Judd, F. (2017) Understanding older problem drinkers: the role of drinking to cope. *Addictive Behaviors*, 64, 101-6.
- Gossop, M. & Moos, R. (2008) Substance misuse among older adults: a neglected but treatable problem. *Addiction*, 103, 347-348.
- Gottlieb, S. (2004) *Inappropriate drug prescribing in elderly people is common*. *BMJ* (Clinical research ed.), 329, 367.
- HM Government. (2012) *The Government's Alcohol Strategy*. London: The Stationary Office Limited. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224075/alcohol-strategy.pdf (Accessed 17 Nov. 2017)
- Home Office (2013) *Next Steps Following the Consultation on Delivering the Government's Alcohol Strategy* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/223773/Alcohol_consultation_response_report_v3.pdf (Accessed 17 Nov. 2017)
- Halonen, J.I., Stenholm, S., Pulakka, A., et al. (2017) Trajectories of risky drinking around the time of statutory retirement: a longitudinal latent class analysis. *Addiction*, 112,1163-70.
- Han, B., Gfroerer, J.C., Colliver, J.D. & Penne, M.A. (2009) Substance use disorder among older adults in the United States in 2020. *Addiction*, 104, 88-96.
- Hawton, K., Comabella, C.C., Haw, C. & Saunders, K. (2013) Risk factors for suicide in individuals with depression: a systematic review. *Journal of Affective Disorders*, 147, 17-28.

- Health and Social Care Information Centre (2017a) High-level prescribing trends for Opioid Analgesics. <https://openprescribing.net/bnf/040702/> (Accessed 29 Jan. 2018)
- Health and Social Care Information Centre (2017b) High-level prescribing trends for pregabalin. <https://openprescribing.net/chemical/0408010AE/> (Accessed 29 Jan. 2018)
- Henkens, K., van Solinge, H. & Gallo, W.T. (2008) Effects of retirement voluntariness on changes in smoking, drinking and physical activity among Dutch older workers. *European Journal of Public Health*, 18, 644-49.
- Holley-Moore, G. and Beach, B., 2016. *Drink Wise, Age Well: alcohol use and the over 50s in the UK*. London: ILC-UK. <https://www.drinkwiseagewell.org.uk/wp-content/uploads/2016/01/Drink-Wise-Age-Well-Alcohol-Use-and-the-over-50s-Report-2.pdf> (Accessed 29 Jan. 2018)
- Holmes, J., Meng, Y., Meier, P.S., et al. (2014) Effects of minimum unit pricing for alcohol on different income and socioeconomic groups: a modelling study. *Lancet*, 383, 1655-64.
- Hughes, L.D., Cochrane, L., McMurdo, M.E. & Guthrie, B. (2016) Psychoactive prescribing for older people—what difference does 15 years make? *International Journal of Geriatric Psychiatry*, 31, 49-57.
- Institute of Health Metrics and Evaluation. 2015, *GBD Compare – Public Health England*. <http://www.health-data.org/results/data-visualizations> (Accessed 17 Nov. 2017)
- Jankovic, S., Stojisavljevic, D., Jankovic, J., et al. (2014) Association of socioeconomic status measured by education, and cardiovascular health: a population-based cross-sectional study. *BMJ open*, 4, e005222-2014-005222.
- Katikireddi, S.V., Whitley, E., Lewsey, J., et al. (2017) Socioeconomic status as an effect modifier of alcohol consumption and harm: an analysis of linked cohort data. *Lancet Public Health*, 2, e267-e276.
- Kaufmann, C.P., Tremp, R., Hersberger, K.E. & Lampert, M.L. (2014) Inappropriate prescribing: a systematic overview of published assessment tools. *European Journal of Clinical Pharmacology*, 70, 1-11.
- Kelly S, Olanrewaju O, Cowan A, et al. (2018) *Alcohol and older people: A systematic review of barriers, facilitators and context of drinking in older people and implications for intervention design*. *PLoS ONE* 13, e0191189.
- Khan, N., Wilkinson, T.J. & Keeling, S. (2006) Reasons for changing alcohol use among older people in New Zealand. *Australasian Journal on Ageing*, 25, 97-100.
- Knott, C.S., Coombs, N., Stamatakis, E. & Biddulph, J.P. (2015) All cause mortality and the case for age specific alcohol consumption guidelines: pooled analyses of up to 10 population based cohorts. *BMJ (Clinical research ed.)*, 350, h384.
- Kott, A. (2011). *Drug use and loneliness are linked to unprotected sex in older adults with HIV*. *Perspectives on Sexual and Reproductive Health*, 43, 69.
- Kuerbis, A. & Sacco, P. (2012) *The impact of retirement on the drinking patterns of older adults: a review*. *Addictive Behaviors*, 37, 587-95.
- Kuo, Y., Raji, M.A., Chen, N., et al. (2016) Trends in opioid prescriptions among Part D Medicare recipients from 2007 to 2012. *American Journal of Medicine*, 129, 21-e21.
- Lafortune, L., Martin, S. & Kelly, S., (2017) Midlife Approaches to Prevention of Ill Health in Later Life. *JAMA Internal Medicine*, 177, 423-424.
- Local Alcohol Profiles for England. (2018) *Alcohol related hospital admissions-statistical tables for England*. London: Public Health England. <https://fingertips.phe.org.uk/profile/local-alcohol-profiles/supporting-information/additional-data> (Accessed 13 Feb. 2018)
- Lyndon, A., Audrey, S., Wells, C., et al. (2017) Risk to heroin users of polydrug use of pregabalin or gabapentin. *Addiction*, 112, 1580–1589.
- Maxwell, J. C. (2015). *Epidemiology and demography of nonmedical prescription drug use in I. Crome, L.-T. Wu, R.(T.) Rao, & P. Crome (Eds.), Substance Use and Older People*, pp 109-20. Chichester: Wiley.
- Meier, P.S., Holmes, J., Angus, C., et al. (2016) Estimated effects of different alcohol taxation and price policies on health inequalities: a mathematical modelling study. *PLoS Medicine*, 13, p.e1001963.
- Moos, R.H., Brennan, P.L. & Mertens, J.R. (1994) Mortality Rates and Predictors of Mortality Among Late Middle Aged and Older Substance Abuse Patients. *Alcoholism: Clinical and Experimental Research*, 18, 187-95.
- Morin, J., Wiktorsson, S., Marlow, T., Olesen, P.J., Skoog, I. and Waern, M. (2013) Alcohol use disorder in elderly suicide attempters: a comparison study. *American Journal of Geriatric Psychiatry*, 21, 196-203.
- Mulford, H. A., & Fitzgerald, J. L. (1992). Elderly versus younger problem drinker profiles: do they indicate a need for special programs for the elderly? *Journal of Studies on Alcohol*, 53, 601-10.
- Naimi, T.S., Stockwell, T., Saitz, R. & Chikritzhs, T. (2017) Selection bias and relationships between alcohol consumption and mortality. *Addiction*, 112, 220-1.

- National Institutes of Health. (2015) *Older Adults and Alcohol*. <https://pubs.niaaa.nih.gov/publications/olde-adults/olderadults.pdf> (Accessed 29 Jan. 2018)
- NHS Digital. (2016), *Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014* <https://www.gov.uk/government/statistics/adult-psychiatric-morbidity-survey-mental-health-and-wellbeing-england-2014> (Accessed 17 Nov. 2017)
- NHS Digital, (2017a), *Health Survey for England 2015* <http://www.content.digital.nhs.uk/catalogue/PUB22610> (Accessed 17 Nov. 2017)
- NHS Digital. (2017b) *Statistics on Smoking, England 2017*. <https://www.gov.uk/government/statistics/statistics-on-smoking-england-2017> (Accessed 17 Nov. 2017)
- NHS Digital. (2017c) *Prescription Cost Analysis, England – 2016*. <http://www.content.digital.nhs.uk/catalogue/PUB23631> (Accessed 17 Nov. 2017)
- NHS Digital. (2018), *Statistics on Drug Misuse: England, 2017*. <http://digital.nhs.uk/catalogue/PUB30210>
- NHS England. (2014) *Advice for prescribers on the risk of the misuse of pregabalin and gabapentin*. <https://www.gov.uk/government/publications/pregabalin-and-gabapentin-advice-for-prescribers-on-the-risk-of-misuse> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2010) *Opinions Survey Report No. 42. Drinking: adults' behaviour and knowledge in 2009*. <http://www.ons.gov.uk/ons/rel/lifestyles/drinking--adult-s-behaviour-and-knowledge/2009-report/index.html> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2012) *Statistics on Alcohol: England. 2012*. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/datasets/adultdrinkinghabits> (Accessed 17 Nov.2017)
- Office of National Statistics. (2016) *Statistics on Alcohol: England. 2016*. <https://www.gov.uk/government/statistics/statistics-on-alcohol-england-2016> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2017a) *Adult Drinking Habits*. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/datasets/adultdrinkinghabits> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2017b) *E-cigarette use in Great Britain*. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/datasets/ecigaretteuseingreatbritain> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2017c) *Alcohol-specific deaths in the UK: registered in 2016*. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsintheunitedkingdom/registeredin2016> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2017d) *Deaths related to drug poisoning in England and Wales: 2016 registrations* <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deaths-relatedtodrugpoisoninginenglandandwales/2016registrations> (Accessed 17 Nov. 2017)
- Office of National Statistics (2017e) *Drug-related deaths in Scotland in 2016. National Records of Scotland*. <https://www.nrscotland.gov.uk/files//statistics/drug-related-deaths/drd2016/16-drug-rel-deaths.pdf> (Accessed 17 Nov. 2017)
- Office of National Statistics. (2017f) *Suicides in the UK: 2016 registrations* <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2016registrations> (Accessed 17 Nov. 2017)
- Perreira, K.M. & Sloan, F.A. (2001) Life events and alcohol consumption among mature adults: a longitudinal analysis. *Journal of Studies on Alcohol*, 62, 501-8.
- Pietrzak, R.H., Goldstein, R.B., Southwick, S.M. & Grant, B.F. (2012) Physical health conditions associated with posttraumatic stress disorder in US older adults: results from wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of the American Geriatrics Society*, 60, 296-303.
- Purshouse, R.C., Meier, P.S., Brennan, A., et al (2010) Estimated effect of alcohol pricing policies on health and health economic outcomes in England: an epidemiological model. *Lancet*, 375, 1355-64.
- Ramstedt, M. (2001) *Alcohol and suicide in 14 European countries*. *Addiction*, 96, 59-75.
- Reininghaus, U., Dutta, R., Dazzan, P., et al. (2014) Mortality in schizophrenia and other psychoses: a 10-year follow-up of the SOP first-episode cohort. *Schizophrenia Bulletin*, 41, 664-73.
- Rao, R., Schofield, P. & Ashworth, M. (2015) Alcohol use, socioeconomic deprivation and ethnicity in older people, *BMJ open*, 5, e007525-2014-007525.
- Rao, R., & Roche, A. (2017) Substance misuse in older people. *BMJ*, 358, j3885.
- Rosen, D., Hunsaker, A., Albert, S.M., et al. (2011) Characteristics and consequences of heroin use among older adults in the United States: a review of the literature, treatment implications, and recommendations for

further research, *Addictive Behaviors*, 36, 279-85.

Royal College of Psychiatrists (2011) *Our Invisible Addicts: First report of the Older Persons' Substance Misuse Working Group of the Royal College of Psychiatrists (CR165)*. London: Royal College of Psychiatrists. <http://www.rcpsych.ac.uk/files/pdfversion/CR165.pdf> (Accessed 17 Nov. 2017)

Sacco, P., Bucholz, K.K. & Spitznagel, E.L. (2009) Alcohol use among older adults in the National Epidemiologic Survey on Alcohol and Related Conditions: A latent class analysis. *Journal of Studies on Alcohol and Drugs*, 70, 829-38.

Salas-Wright, C.P., Vaughn, M.G., Cummings-Vaughn, L.A., et al. (2017) Trends and correlates of marijuana use among late middle-aged and older adults in the United States, 2002–2014. *Drug and Alcohol Dependence*, 171, 97-106.

Scottish Government. *Alcohol (Minimum Pricing) (Scotland) Act 2012*. http://www.legislation.gov.uk/asp/2012/4/pdfs/asp_20120004_en.pdf (Accessed 17 Nov. 2017)

Schepis, T.S. & McCabe, S.E. (2016) Trends in older adult nonmedical prescription drug use prevalence: Results from the 2002–2003 and 2012–2013 National Survey on Drug Use and Health. *Addictive Behaviors*, 60, 219-222.

Shalev, I., Entringer, S., Wadhwa, P.D., et al. (2013) Stress and telomere biology: a lifespan perspective. *Psychoneuroendocrinology*, 38, 1835-42.

Shaw, B.A., Agahi, N. & Krause, N. (2011) Are changes in financial strain associated with changes in alcohol use and smoking among older adults? *Journal of Studies on Alcohol and Drugs*, 72, 917-25.

Shield, K.D., Gmel, G., Gmel, G., et al. (2017) Life time risk of mortality due to different levels of alcohol consumption in seven European countries: implications for low risk drinking guidelines. *Addiction*, 112, 1535–1544.

Sproule, B.A., Busto, U.E., Buckle, C., et al. (1999) The use of non prescription sleep products in the elderly. *International Journal of Geriatric Psychiatry*, 14, 851-57.

Stannard, C. (2016) *Misuse of gabapentin and pregabalin: a marker for a more serious malaise?* *Addiction*, 111, 1699-700.

Stockwell, T., Zhao, J., Greenfield, T., et al. (2016) Estimating under and over reporting of drinking in national surveys of alcohol consumption: identification of consistent biases across four English speaking countries. *Addiction*, 111, 203-13.

Stockwell, T., Auld, M.C., Zhao, J. & Martin, G. (2012) Does minimum pricing reduce alcohol consumption? The experience of a Canadian province. *Addiction*, 107, 912-20.

Syse, A., Veenstra, M., Furunes, T., et al. (2017) Changes in health and health behavior associated with retirement. *Journal of Aging and Health*, 29, 99-127.

Topiwala, A., Allan, C.L., Valkanova, V., et al. (2017) Moderate alcohol consumption as risk factor for adverse brain outcomes and cognitive decline: longitudinal cohort study. *BMJ (Clinical research ed.)*, 357, j2353.

Wetterling, T., Veltrup, C., John, U. & Driessen, M. (2003) Late onset alcoholism. *European Psychiatry*, 18, 112-18.

Witkiewitz, K., Vowles, K.E., McCallion, E., et al. (2015) Pain as a predictor of heavy drinking and any drinking lapses in the COMBINE study and the UK Alcohol Treatment Trial. *Addiction*, 110, 1262-71.

Wolitzky Taylor, K.B., Castriotta, N., Lenze, E.J., et al. (2010) Anxiety disorders in older adults: a comprehensive review. *Depression and Anxiety*, 27, 190-211.

Zin, C. S., Chen, L. C., & Knaggs, R. D. (2014). Changes in trends and pattern of strong opioid prescribing in primary care. *European Journal of Pain*, 18, 1343-51.

Zupan, Z., Evans, A., & Marteau, T.M. (2017) Wine glass size in England from 1700 to 2017: a measure of our time. *BMJ*, 35, j5623.

Assessment of substance misuse

Aalto, M., Alho, H., Halme, J., et al (2011) The Alcohol Use Disorders Identification Test (AUDIT) and its derivatives in screening for heavy drinking among the elderly. *International Journal of Geriatric Psychiatry*, 26, 881–5.

Adams, W. L., Barry, K. L., & Fleming, M. F. (1996). Screening for problem drinking in older primary care patients. *Journal of The American Medical Association*, 276, 1964-1967.

American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders (5th Edn) (DSM-V)*. APA.

Blow, F. C., Gillespie, B. W., Barry, K. L., Mudd, S. A., & Hill, E. M. (1998). Brief screening for alcohol problems in elderly populations using the Short Michigan Alcoholism Screening Test-Geriatric version (SMAST-G). *Alcoholism: Clinical and Experimental Research*, 22,131a.

Blow, F.C. (1998) *Substance abuse among older adults* (Treatment Improvement Protocol (TIP) Series No. 26). Substance Abuse and Mental Health Services Administration (US). <http://adaiclearinghouse.org/downloads/tip-26-substance-abuse-among-older-adults-67.pdf> (Accessed 29 Jan. 2018)

Bush, K., Kivlahan, D.C., McDonnell, M.B., et al (1998) The Audit Alcohol Consumption Questionnaire (Audit-C): An Effective Brief Screening Test for Problem Drinking. *Archives of Internal Medicine*, 158, 1789-95

Crome, I.B., Wu, L. Rao, R., & Crome, P. (Eds) (2015) *Substance Use and Older People*. Wiley; Oxford.

Crome, I.B. & Ghodse, A-H. (2007) Drug Misuse in Medical Patients. In *Handbook of Liaison Psychiatry* (Eds G. Lloyd & E. Guthrie). Cambridge University Press.

Crome, I.B., & Bloor, R.N. (2006) Older substance misusers still deserve better interventions- An Update (Part 3). *Reviews in Clinical Gerontology*,16,45-57.

Fagerstrom, K.O., Heatherton, T.F., Kozlowski, L.T (1990) Nicotine addiction and its assessment. *Ear Nose Throat Journal*. 69, 763-5.

Folstein, M. F., Folstein, S. E. & McHugh, P. R. (1975) 'Mini-Mental State': A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, 12, 189–198.

Haskins, B., Abar B., Davis-Martin R, Boureaux, E.D. (2017) Health evaluation and referral assistant: a randomized controlled trial of a web-based screening, brief intervention, and referral to treatment system to reduce risky alcohol use among Emergency Department patients. *Journal of Medical Internet Research*, 19, E119.

Holtz, K., Nemes, R.D., Landis, R., & Hoffman, J. (2011) Development of a computerised screening system to identify substance abuse in primary care *Journal for Healthcare Quality*, 23, 34-45

Mioshi E Dawson K Mitchell J Arnold R Hodges R et al 2006 The Addenbrooke's Cognitive Examination Revised (ACE-R): A brief cognitive test battery for dementia screening. *International Journal of Geriatric Psychiatry*, 21,078-1085.

O'Connell, H., Chin, A., Cunningham, C., et al (2003) *Alcohol use disorders in elderly people: refining an age-old problem in old age*. *BMJ*, 327, 664-667.

Philpot, M., Pearson, N., Petratos, V., et al (2003) *Screening for problem drinking in older people referred to a mental health service: a comparison of CAGE and AUDIT*. *Aging and Mental Health*, 7,171–5.

Piccinelli, M., Tessari, E., Bortolomasi, M., et al (1997). Efficacy of the Alcohol Use Disorders Identification Test as a screening tool for hazardous alcohol intake and related disorders in primary care: a validity study. *BMJ*, 314,420.

Rao, R., & Crome, I. (2016). Assessment in the Older Patient. In *Addiction in The Older Patient*. (Eds M. Sullivan, F. Levin): pp. 173-210. Oxford University Press

Raw, M., McNeill, A., & West, R. (1998) *Smoking cessation guidelines for health professionals: a guide to effective smoking cessation interventions for the healthcare system*. *Thorax*, 53,S1-37.

Roberts, A., Marshall, E. J., & Macdonald, A. J. D. (2005) *Which screening test for alcohol consumption is best associated with "at risk" drinking in older primary care attenders?* *Primary Care Mental Health*,3, 131-138.

Royal College of Psychiatrists (2011) *Our Invisible Addicts (CR165)*. Royal College of Psychiatrists. <http://www.rcpsych.ac.uk/files/pdfversion/cr165.pdf> (Accessed 29 Jan. 2018)

Royal College of Psychiatrists (2015) *Substance Misuse in Older People: An Information Guide*. (Cross-Faculty Report OA/AP/01). Royal College of Psychiatrists. <https://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People%20an%20information%20guide.pdf> (Accessed 29 Jan. 2018)

Saunders, J.B., Aasland, O.G., Babor, T.F. et al (1993) Development of The Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption – II, *Addiction*, 88, 791-804.

Society for the Study of Addiction (2014) Substance Misuse Factsheet; Older People <http://www.addiction-ssa.org/factsheets/older-people%20> (Accessed 29 Jan. 2018)

U.S. Department of Health and Human Services (2005) Helping Patients Who Drink Too Much: A Clinician's Guide. National Institute on Alcohol Abuse and Addiction.

Wade, D.T., & Collin, C. (1998) The Barthel ADL Index: a standard measure of physical disability? *International Disability Studies*, 10, 64-67.

World Health Organization (1992) The ICD-10 Classification of Mental And Behavioural Disorders: Clinical Descriptions And Diagnostic Guidelines. WHO.

Alcohol-related brain damage and physical complications of substance misuse

Allison, W.E., Chiang, W., Rubin, A., et al. (2016). Knowledge about hepatitis C virus infection and acceptability of testing in baby boomers presenting to a large urban emergency department: a pilot study. *Journal of Emergency Medicine*, 50, 825-31.

American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders (5th edn) (DSM-V). APA.

Emmerson, C. & Smith, J. (2015). Evidence-based profile of alcohol related brain damage in Wales. *Public Health Wales*.

Gazdzinski, S., Durazzo, T.C., Studholme C., et al. (2005) Quantitative brain MRI in alcohol dependence: preliminary evidence for effects of concurrent chronic cigarette smoking on regional brain volumes. *Alcoholism Clinical and Experimental Research*, 29, 1484-95.

Gilchrist, G. & Morrison, D.S. (2005). Prevalence of alcohol related brain damage among homeless hostel dwellers in Glasgow. *European Journal of Public Health*, 15, 587-8.

Kim, J.W., Lee, D.Y., Lee, B.C., et al. (2012), Alcohol and cognition in the elderly: a review. *Psychiatry Investigation*, 9, 8-16.

Lee, H., Roh, S. & Kim, D.J., (2009). Alcohol-induced blackout. *International Journal of Environmental Research and Public Health*, 6, 2783-92.

McColl, L., McCrae, A., & Nowak, I. (2010) Scoping Study for Alcohol Related Brain Damage – Final Report. Research Advisory Group, Lanarkshire Alcohol & Drug Partnership (LanADP).

McMurtry, A., Clark, D., Christine, D., & Mendez, M.F. (2006). Early-onset dementia: frequency and causes compared to late-onset dementia. *Dementia and Geriatric Cognitive Disorders*, 21, 59-64.

NHS Digital (2017). *Hospital Admitted Patient Care Activity, 2016-17*. <https://digital.nhs.uk/catalogue/PUB30098> (Accessed 21 Nov. 2017)

National Institute for Health and Clinical Excellence (2010) Alcohol-use Disorders: Preventing the Development of Hazardous and Harmful Drinking (NICE Public Health Guidance 24). NICE. <https://www.nice.org.uk/guidance/ph24> (Accessed 21Nov.2017)

NHS Choices (2016) The risks of drinking too much. <https://www.nhs.uk/Livewell/alcohol/Pages/Effectsofalcohol.aspx> (Accessed 21 Nov. 2017)

Oslin, D., Atkinson, R.M., Smith, D.M. & Hendrie, H. (1998). Alcohol related dementia: proposed clinical criteria. *International Journal of Geriatric Psychiatry*, 13, 203-212.

Oslin, D.W. & Cary, M.S. (2003). Alcohol-related dementia: validation of diagnostic criteria. *American Journal of Geriatric Psychiatry*, 11, 441-447.

Public Health England. *Hepatitis C in the UK: 2013 report*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364074/Hepatitis_C_in_the_UK_2013.pdf (Accessed 21 Nov. 2017)

Rao, R., & Draper, B. (2015). Alcohol-related brain damage in older people. *Lancet Psychiatry*, 2, 674-675.

Rao, R. (2016) *Cognitive impairment in older people with alcohol use disorders in a UK community mental health service*. *Advances in Dual Diagnosis* 9, 154-8.

- Ridley, N.J., Draper, B., Withall, A. (2012), Alcohol-related dementia: an update of the evidence. *Alzheimers Research and Therapy*, 5, 3.
- Royal College of Psychiatrists (2015) Substance Misuse in Older People: An Information Guide. (Cross-Faculty Report OA/AP/01). Royal College of Psychiatrists. https://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People_an%20information%20guide.pdf (Accessed 21 Nov. 2017)
- Royal College of Psychiatrists 2014, Alcohol and brain damage in adults with reference to high-risk groups (CR185). London: Royal College of Psychiatrists.
- Sachdeva, A., Chandra, M., Choudhary, M., et al. (2016). Alcohol-related dementia and neurocognitive impairment: a review study. *International Journal of High Risk Behaviors & Addiction*, 5.
- Stewart, D., Han, L., Doran, T. & McCambridge, J. (2017). Alcohol consumption and all-cause mortality: an analysis of general practice database records for patients with long-term conditions. *Journal of Epidemiology and Community Health*, 71, 729-735.
- Wilson, K., Halsey, A., Macpherson, H., et al. 2012), *The psycho-social rehabilitation of patients with alcohol-related brain damage in the community. Alcohol and Alcoholism* 47, 304-311.
- World Health Organization (1992) The ICD-10 Classification of Mental and Behavioural Disorders: Clinical Descriptions and Diagnostic Guidelines. WHO. <http://www.who.int/classifications/icd/en/bluebook.pdf> (Accessed 29 Jan.2018)
- Yehia, B.R., Schranz, A.J., Umscheid, C.A. and Re III, V.L., (2014) The treatment cascade for chronic hepatitis C virus infection in the United States: a systematic review and meta-analysis. *PloS one*, 9, p.e101554.
- Zahr, N.M. & Pfefferbaum, A. (2017) Alcohol's effects on the brain: neuroimaging results in humans and animal models. *Alcohol Research: Current Reviews*, 38, 183.

Treatment

- Arndt, S., Clayton, R., & Schultz, S. K. (2011). Trends in substance abuse treatment 1998-2008: increasing older adult first-time admissions for illicit drugs. *The American Journal of Geriatric Psychiatry*, 19(8), 704-711. doi:10.1097/JGP.0b013e31820d942b
- Barnett, P. G., Wong, W., Jeffers, A., Munoz, R., Humfleet, G., & Hall, S. (2014). Cost-effectiveness of extended cessation treatment for older smokers. *Addiction*, 109(2), 314-322. doi:10.1111/add.12404
- Bartels, S. J., Coakley, E. H., Zubritsky, C., Ware, J. H., Miles, K. M., Areán, P. A., Levkoff, S. E. (2004). Improving Access to Geriatric Mental Health Services: A Randomized Trial Comparing Treatment Engagement With Integrated Versus Enhanced Referral Care for Depression, Anxiety, and At-Risk Alcohol Use. *American Journal of Psychiatry*, 161(8), 1455-1462. doi:10.1176/appi.ajp.161.8.1455
- Beynon, C. M., McVeigh, J., Hurst, A., & Marr, A. (2010). Older and sicker: Changing mortality of drug users in treatment in the North West of England. *Int J Drug Policy*, 21, 429-431. doi:10.1016/j.drugpo.2010.01.012
- Beynon, C. M., McVeigh, J. I. M., & Roe, B. (2007). Problematic drug use, ageing and older people: trends in the age of drug users in northwest England. *Ageing and Society*, 27(6), 799-810. doi:10.1017/S0144686X07006411
- Bhatia, U., Nadkarni, A., Murthy, P., Rao, R., & Crome, I. (2015). Recent advances in treatment for older people with substance use problems: An updated systematic review and narrative review. *European Geriatric Medicine*, 6, 580-586.
- Blazer, D. G., & Wu, L.-T. (2012). Patterns of tobacco use and tobacco-related psychiatric morbidity and substance use among middle-aged and older adults in the United States. *Aging & Mental Health*, 16(3), 296-304. doi:10.1080/13607863.2011.615739
- Blow, F. C., & Barry, K. L. (2012). Alcohol and Substance Misuse in Older Adults. *Current Psychiatry Reports*, 14(4), 310-319. doi:10.1007/s11920-012-0292-9
- Blow, F. C., Walton, M. A., Chermack, S. T., Mudd, S. A., & Brower, K. J. (2000). Older adult treatment outcome following elder-specific inpatient alcoholism treatment. *Journal of Substance Abuse Treatment*, 19(1), 67-75. doi: [http://dx.doi.org/10.1016/S0740-5472\(99\)00101-4](http://dx.doi.org/10.1016/S0740-5472(99)00101-4) (Accessed 29 Jan. 2018)
- Broadhurst, C., Wilson, K. C. M., Kinirons, M. T., Wagg, A., & Dhesi, J. K. (2003). Clinical pharmacology of old age syndromes. *British Journal of Clinical Pharmacology*, 56(3), 261-272. doi:10.1046/j.0306-5251.2003.01877.x

- Brower, K. J., Mudd, S., Blow, F. C., Young, J. P., & Hill, E. M. (1994). Severity and treatment of alcohol withdrawal in elderly versus younger patients. *Alcoholism: Clinical and Experimental Research*, 18(1), 196-201.
- Cataldo, J. K., Petersen, A. B., Hunter, M., Wang, J., & Sheon, N. (2015). E-cigarette marketing and older smokers: Road to renormalization. *Am J Health Behav*, 39(3), 361-371.
- Center for Substance Abuse Treatment. (2005). *Substance Abuse Relapse Prevention for Older Adults: A Group Treatment Approach*. Retrieved from Rockville, MD:
- Chatterjee, D., Iliffe, S., Kharicha, K., Harari, D., Swift, C., Gillman, G., & Stuck, A. E. (2017). Health risk appraisal in older people 7: long-acting benzodiazepine use in community-dwelling older adults in London: is it related to physical or psychological factors? *Primary Health Care Research & Development*, 18(3), 253-260. doi:10.1017/S1463423617000068
- Cheng, G. L. F., Zeng, H., Leung, M. K., Zhang, H. J., Lau, B. W. M., Liu, Y. P., Lee, T. M. C. (2013). Heroin abuse accelerates biological aging: a novel insight from telomerase and brain imaging interaction. *Translational Psychiatry*, 3, e260. doi:10.1038/tp.2013.36 <https://www.nature.com/articles/tp201336#supplementary-information> (Accessed 29 Jan. 2018)
- Choi, N. G., & DiNitto, D. M. (2015). Role of New Diagnosis, Social Isolation, and Depression in Older Adults' Smoking Cessation. *The Gerontologist*, 55(5), 793-801. doi:10.1093/geront/gnu049
- Chou, R., Fanciullo, G. J., Fine, P. G., Miaskowski, C., Passik, S. D., & Portenoy, R. K. (2009). Opioids for Chronic Noncancer Pain: Prediction and Identification of Aberrant Drug-Related Behaviors: A Review of the Evidence for an American Pain Society and American Academy of Pain Medicine Clinical Practice Guideline. *The Journal of Pain*, 10(2), 131-146.e135. doi: <https://doi.org/10.1016/j.jpain.2008.10.009> (Accessed 29 Jan. 2018)
- Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group. (2017). *Drug misuse and dependence: UK guidelines on clinical management*. <https://www.gov.uk/government/publications/drug-misuse-and-dependence-uk-guidelines-on-clinical-management> (Accessed 29 Jan. 2018)
- Connock, M., Juarez-Garcia, A., Jowett, S., Frew, E., Liu, Z., Fry-Smith, A., Taylor, R. (2006). Methadone and Buprenorphine for the Management of Opioid Dependence: A Systematic Review and Economic Evaluation. *Health Technology Assessment*, 11(9), 1-171.
- Cooper, R. J. (2013a). 'I can't be an addict. I am.' *Over-the-counter medicine abuse: a qualitative study*. *BMJ Open*, 3(6). doi:10.1136/bmjopen-2013-002913
- Cooper, R. J. (2013b). *Over-the-counter medicine abuse – a review of the literature*. *Journal of Substance Use*, 18(2), 82-107. doi:10.3109/14659891.2011.615002
- Cooper, R. J. (2013c). *Surveillance and uncertainty: community pharmacy responses to over the counter medicine abuse*. *Health & Social Care in the Community*, 21(3), 254-262. doi:10.1111/hsc.12012
- Copello, A., & Templeton, L. (2012). Adult Family Members Affected by a Relative's Substance Misuse: A UK-wide survey of services for adult family members. Retrieved from London:
- Copello, A., Velleman, R., & Templeton, L. (2005). Family interventions in the treatment of alcohol and drug problems. *Drug and Alcohol Review*, 24(4), 369-385.
- Crome, I., & Bloor, R. (2006). Older substance misusers still deserve better treatment interventions—an update (Part 3). *Reviews in Clinical Gerontology*, 16(1), 45-57. doi:10.1017/S0959259806001948
- Dahm, J. L., Cook, E., Baugh, K., Wileyto, E. P., Pinto, A., Leone, F., . . . Schnoll, R. A. (2009). Predictors of Enrollment in a Smoking Cessation Clinical Trial After Eligibility Screening. *Journal of the National Medical Association*, 101(5), 450-455. doi: [https://doi.org/10.1016/S0027-9684\(15\)30931-7](https://doi.org/10.1016/S0027-9684(15)30931-7)
- Day, E., Bentham, P. W., Callaghan, R., Kuruvilla, T., & George, S. (2013). Thiamine for prevention and treatment of Wernicke-Korsakoff Syndrome in people who abuse alcohol. *Cochrane Database of Systematic Reviews*, Issue 7, Art. No.: CD004033. doi:10.1002/14651858.CD004033.pub3.
- Day, E., Copello, A., & Hull, M. (2015). Assessment and management of alcohol use disorders. *BMJ : British Medical Journal*, 350. doi:10.1136/bmj.h715
- Deyo, R. A., Von Korff, M., & Duhrkoop, D. (2015). Opioids for low back pain. *BMJ : British Medical Journal*, 350. doi:10.1136/bmj.g6380
- Dupree, L. W., Broskowski, H., & Schonfeld, L. (1984). The Gerontology Alcohol Project: a behavioural treatment program for elderly alcohol abusers. *The Gerontologist*, 24(5), 510-516.
- European Monitoring Centre for Drugs and Drug Addiction. (2010). *Treatment and care of older drug users*. http://www.emcdda.europa.eu/publications/selected-issues/older-drug-users_en (Accessed "9th Jan.2018)
- Fingleton, N. A., Watson, M. C., Duncan, E. M., & Matheson, C. (2016). Non-prescription medicine misuse, abuse and dependence: a cross-sectional survey of the UK general population. *Journal of Public Health*, 38(4), 722-730. doi:10.1093/pubmed/fdv204
- Fink, A., Elliott, M. N., Tsai, M., & Beck, J. C. (2005). An Evaluation of an Intervention to Assist Primary Care

- Physicians in Screening and Educating Older Patients Who Use Alcohol. *Journal of the American Geriatrics Society*, 53(11), 1937-1943. doi:10.1111/j.1532-5415.2005.00476.x
- Fleming, M. F., *Manwell, L. B., Barry, K. L., Adams, W., & Stauffacher, E. A.* (1999). Brief physician advice for alcohol problems in older adults. A randomized community-based trial. *The Journal of Family Practice*, 48(5), 378-384.
- Frei, M. Y., *Nielsen, S., Dobbin, M. D. H., & Tobin, C. L.* (2010). Serious morbidity associated with misuse of over-the-counter codeine–ibuprofen analgesics: a series of 27 cases. *Med J Aust*, 193(5), 294-296.
- Gibson, A., *Randall, D., & Degenhardt, L.* (2011). The increasing mortality burden of liver disease among opioid-dependent people: cohort study. *Addiction*, 106(12), 2186-2192. doi:10.1111/j.1360-0443.2011.03575.x
- Gordon, A. J., *Conigliaro, J., Maisto, S. A., McNeil, M., Kraemer, K. L., & Kelley, M. E.* (2003). Comparison of Consumption Effects of Brief Interventions for Hazardous Drinking Elderly. *Substance Use & Misuse*, 38(8), 1017-1035. doi:10.1081/JA-120017649
- Gossop, M., & *Moos, R.* (2008). Substance misuse among older adults: a neglected but treatable problem. *Addiction*, 103(3), 347-348. doi:10.1111/j.1360-0443.2007.02096.x
- Grella, C. E., & *Lovinger, K.* (2012). Gender differences in physical and mental health outcomes among an aging cohort of individuals with a history of heroin dependence. *Addictive Behaviors*, 37(3), 306-312. doi: <https://doi.org/10.1016/j.addbeh.2011.11.028>
- Homer, A. C., & *Gilleard, C.* (1990). Abuse of elderly people by their carers. *British Medical Journal*, 301, 1359-62.
- Hser, Y.-I., *Hoffman, V., Grella, C. E., & Anglin, M. D.* (2001). A 33-year follow-up of narcotics addicts. *Arch General Psychiatry*, 58, 503-508.
- Jamison, R. N., *Link, C. L., & Marceau, L. D.* (2009). Do Pain Patients at High Risk for Substance Misuse Experience More Pain?: A Longitudinal Outcomes Study. *Pain Medicine*, 10(6), 1084-1094. doi:10.1111/j.1526-4637.2009.00679.x
- Kalso, E., *Edwards, J. E., Moore, A. R., & McQuay, H. J.* (2004). Opioids in chronic non-cancer pain: systematic review of efficacy and safety. *PAIN*, 112(3), 372-380. doi:10.1016/j.pain.2004.09.019
- Kaner, E. F. S., *Dickinson, H. O., Beyer, F. R., Campbell, F., Schlesinger, C., Heather, N., Pienaar, E. D.* (2007). Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews*(2). doi:10.1002/14651858.CD004148.pub3
- Kashner, T. M., *Rodell, D. E., Ogden, S. R., Guggenheim, F. G., & Karson, C. N.* (1992). Outcomes and Costs of Two VA Inpatient Treatment Programs for Older Alcoholic Patients. *Psychiatric Services*, 43(10), 985-989. doi:10.1176/ps.43.10.985
- Koenig, T. L., & *Crisp, C.* (2008). Ethical Issues in Practice With Older Women Who Misuse Substances. *Substance Use & Misuse*, 43(8-9), 1045-1061. doi:10.1080/10826080801914246
- Kuerbis, A., & *Sacco, P.* (2013). A Review of Existing Treatments for Substance Abuse Among the Elderly and Recommendations for Future Directions. *Substance Abuse: Research and Treatment*, 7(3549-SART-A-Review-of-Existing-Treatments-for-Substance-Abuse-Among-the-Elderly-.pdf), 13-37. doi:10.4137/SART.S7865
- Lemke, S., & *Moos, R. H.* (2002). Prognosis of older patients in mixed-age alcoholism treatment programs. *Journal of Substance Abuse Treatment*, 22(1), 33-43. doi: [http://dx.doi.org/10.1016/S0740-5472\(01\)00209-4](http://dx.doi.org/10.1016/S0740-5472(01)00209-4)
- Lemke, S., & *Moos, R. H.* (2003a). Outcomes at 1 and 5 years for older patients with alcohol use disorders. *Journal of Substance Abuse Treatment*, 24(1), 43-50. doi:http://dx.doi.org/10.1016/S0740-5472(02)00321-5
- Lemke, S., & *Moos, R. H.* (2003b). Treatment and outcomes of older patients with alcohol use disorders in community residential programs. *Journal of Studies on Alcohol*, 64(2), 219-226. doi:10.15288/jsa.2003.64.219
- Li, L., *Setoguchi, S., Cabral, H., & Jick, S.* (2013). Opioid Use for Noncancer Pain and Risk of Fracture in Adults: A Nested Case-Control Study Using the General Practice Research Database. *American Journal of Epidemiology*, 178(4), 559-569. doi:10.1093/aje/kwt013
- Lin, J. C., *Karno, M. P., Barry, K. L., Blow, F. C., Davis, J. W., Tang, L., & Moore, A. A.* (2010). Determinants of Early Reductions in Drinking in Older At-Risk Drinkers Participating in the Intervention Arm of a Trial to Reduce At-Risk Drinking in Primary Care. *Journal of the American Geriatrics Society*, 58(2), 227-233. doi:10.1111/j.1532-5415.2009.02676.x
- Lingford-Hughes, A. R., *Welch, S., Peters, L., Nutt, D. J., Ball, D., Buntwal, N., Winstock, A.* (2012). BAP updated guidelines: evidence-based guidelines for the pharmacological management of substance abuse, harmful use, addiction and comorbidity: recommendations from BAP. *Journal of Psychopharmacology*, 26(7), 899-952.

- Matheson C & Liddle D (2017) Older people with drug problems in Scotland: A mixed methods study exploring health and social support needs. *Scottish Drugs Forum*.
<http://sdf.org.uk/resource-type/older-drug-users/> (Accessed 29 Jan. 2018)
- Moore, A. A., Blow, F. C., Hopping, M., Welgreen, S., Davis, J. W., Lin, J. C., Barry, K. L. (2011). Primary care-based intervention to reduce at-risk drinking in older adults: a randomized controlled trial. *Addiction*, 106(1), 111-120. doi:10.1111/j.1360-0443.2010.03229.x
- Moy, I., Crome, P., Crome, I., & Fisher, M. (2011) Systematic and narrative review of treatment for older people with substance problems. *European Geriatric Medicine*, 2(4), 212-236. doi:10.1016/j.eurger.2011.06.004
- National Collaborating Centre for Mental Health. (2007). *Opiate Detoxification for Drug Misuse*. London.
- National Collaborating Centre for Mental Health. (2008). *Drug Misuse: Psychosocial Interventions*. London: British Psychological Society & The Royal College of Psychiatrists.
- National Collaborating Centre for Mental Health. (2011). *Alcohol-Use Disorders: The NICE Guideline on Diagnosis, Assessment and Management of Harmful Drinking and Alcohol Dependence*. London: The British Psychological Society and The Royal College of Psychiatrists.
- National Institute for Health and Clinical Excellence. (2010a). *Alcohol-Use Disorders: Diagnosis and Clinical Management of Alcohol-Related Physical Complications*. *Clinical Guideline 100*. Retrieved from London:
- National Institute for Health and Clinical Excellence. (2010b). *Alcohol-use Disorders: Preventing Harmful Drinking*. Retrieved from
- Office for National Statistics. (2017). *Adult smoking habits in the UK: 2016*.
- Oslin, D. W., Grantham, S., Coakley, E., Maxwell, J., Miles, K. M., Ware, J. H., Zubritsky, C. (2006). PRISM-E: Comparison of Integrated Care and Enhanced Specialty Referral in Managing At-Risk Alcohol Use. *Psychiatric Services*, 57(7), 954-958. doi:10.1176/ps.2006.57.7.954
- Oslin, D. W., Pettinati, H., & Volpicelli, J. R. (2002). Alcoholism treatment adherence: Older age predicts better adherence and drinking outcomes. *The American Journal of Geriatric Psychiatry*, 10(6), 740-747.
- Oslin, D. W., Sayers, S., Ross, J., Kane, V., Ten Have, T., Conigliaro, J., & Cornelius, J. (2003). Disease Management for Depression and At-Risk Drinking Via Telephone in an Older Population of Veterans. *Psychosomatic Medicine*, 65(6), 931-937.
- Oslin, D. W., Slaymaker, V. J., Blow, F. C., Owen, P. L., & Collieran, C. (2005). Treatment outcomes for alcohol dependence among middle-aged and older adults. *Addictive Behaviors*, 30(7), 1431-1436. doi: <http://dx.doi.org/10.1016/j.addbeh.2005.01.007>
- Outlaw, F. H., Marquart, J. M., Roy, A., Luellen, J. K., Moran, M., Willis, A., & Doub, T. (2012). Treatment Outcomes for Older Adults Who Abuse Substances. *Journal of Applied Gerontology*, 31(1), 78-100. doi:doi:10.1177/0733464810382906
- Park, J., & Lavin, R. (2010). Risk Factors Associated With Opioid Medication Misuse in Community-dwelling Older Adults With Chronic Pain. *The Clinical Journal of Pain*, 26(8), 647-655. doi:10.1097/AJP.0b013e3181e94240
- Payne, M., Gething, M., Moore, A. A., & Reid, M. C. (2011). Primary Care Providers' Perspectives On Psychoactive Medication Disorders in Older Adults. *The American journal of geriatric pharmacotherapy*, 9(3), 164-172. doi:10.1016/j.amjopharm.2011.04.004
- Peppers, M. P. (1996). *Benzodiazepines for Alcohol Withdrawal in the Elderly and in Patients With Liver Disease*. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*, 16(1), 49-58. doi:10.1002/j.1875-9114.1996.tb02915.x
- Pilowsky, D. J., & Wu, L.-T. (2015). Tobacco Use Cessation. In I. Crome, L.-T. Wu, R. T. Rao, & P. Crome (Eds.), *Substance Use and Older People* pp. 212-221. Chichester: Wiley Blackwell.
- Public Health England. (2016). *The Public Health Burden of Alcohol and the Effectiveness and Cost-Effectiveness of Alcohol Control Policies: An evidence review*. Retrieved from London: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/583047/alcohol_public_health_burden_evidence_review.pdf
- Rao, R. (2013). Outcomes from liaison psychiatry referrals for older people with alcohol use disorders in the UK. *Mental Health and Substance Use*, 6, 362-8.
- Reay, A. C., & Browne, K. D. (2001). Risk factor characteristics in carers who physically abuse or neglect their elderly dependants. *Aging & Mental Health*, 5, 56-62.
- Reece, A. S. (2012). *Differing age related trajectories of dysfunction in several organ systems in opiate dependence*. *Aging clinical and experimental research*, 24(1), 85-96. doi:10.3275/7518
- Rice, C., Longabaugh, R., Beattie, M., & Noel, N. (1993). Age group differences in response to treatment for problematic alcohol use. *Addiction*, 88(10), 1369-1375. doi:10.1111/j.1360-0443.1993.tb02023.x

- Roerig, J. L., Steffen, K. J., Mitchell, J. E., & Zunker, C. (2010). Laxative Abuse. *Drugs*, 70(12), 1487-1503. doi:10.2165/11898640-000000000-00000
- Rosen, D., Hunsaker, A., Albert, S. M., Cornelius, J. R., & Reynolds, C. F. (2011). Characteristics and consequences of heroin use among older adults in the United States: A review of the literature, treatment implications, and recommendations for further research. *Addictive Behaviors*, 36, 279-285.
- Rosen, D., Smith, M. L., & Reynolds, C. F., III. (2008). The Prevalence of Mental and Physical Health Disorders Among Older Methadone Patients. *The American Journal of Geriatric Psychiatry*, 16(6), 488-497. doi:10.1097/JGP.0b013e31816ff35a
- Satre, D. D., Mertens, J., Arean, P. A., & Weisner, C. (2003). Contrasting outcomes of older versus middle-aged and younger adult chemical dependency patients in a managed care program. *J Stud Alcohol*, 64. doi:10.15288/jsa.2003.64.520
- Satre, D. D., Mertens, J. R., & Weisner, C. (2004). Gender differences in treatment outcomes for alcohol dependence among older adults. *Journal of Studies on Alcohol*, 65(5), 638-642. doi:10.15288/jsa.2004.65.638
- Schonfeld, L., Dupree, L. W., Dickson-Fuhrmann, E., Royer, C. M. R., McDermott, C. H., Rosansky, J. S., Jarvik, L. F. (2000). Cognitive-Behavioral Treatment of Older Veterans with Substance Abuse Problems. *Journal of Geriatric Psychiatry and Neurology*, 13(3), 124-129.
- Schultz, S. K., Arndt, S., & Liesveld, J. (2003). Locations of facilities with special programs for older substance abuse clients in the US. *International Journal of Geriatric Psychiatry*, 18(9), 839-843. doi:10.1002/gps.994
- Schutte, K., Lemke, S., Moos, R. H., & Brennan, P. L. (2015). Age-Sensitive Psychosocial Treatment for Older Adults with Substance Abuse. In I. Crome, L.-T. Wu, R. T. Rao, & P. Crome (Eds.), *Substance Use and Older People* pp. 314-339. Chichester: John Wiley & Sons.
- Sgouros, X., Baines, M., Bloor, R. N., McAuley, R., Ogundipe, L. O., & Willmott, S. (2004). Evaluation of a clinical screening instrument to identify states of thiamine deficiency in inpatients with severe alcohol dependence syndrome. *Alcohol & Alcoholism*, 39(3), 227-232.
- Shahab, L., Gilchrist, G., Hagger-Johnson, G., Shankar, A., West, E., & West, R. (2015). Reciprocal associations between smoking cessation and depression in older smokers: findings from the English Longitudinal Study of Ageing. *The British Journal of Psychiatry*, 207(3), 243-249. doi:10.1192/bjp.bp.114.153494
- Slymaker, V. J., & Owen, P. (2008). Alcohol and Other Drug Dependence Severity Among Older Adults in Treatment: Measuring Characteristics and Outcomes. *Alcoholism Treatment Quarterly*, 26(3), 259-273. doi:10.1080/07347320802071877
- South West Public Health Observatory. (2008). *Calling Time: Reducing Alcohol Harm in the South West – A Blueprint for Joint Action*. Retrieved from
- Sullivan, J. T., Sykora, K., Schnidman, J., Naranjo, C. A., & Sellers, E. M. (1989). Assessment of alcohol withdrawal: the Revised Clinical Institute Withdrawal Assessment for Alcohol Scale (CIWA-Ar). *British Journal of Addiction*, 84, 1353-1357.
- Wadd, S., & Dutton, M. (2017). Accessibility and suitability of residential alcohol treatment for older adults. http://alcoholresearchuk.org/downloads/finalReports/FinalReport_0145.pdf (Accessed 11 Feb. 2018)
- Wetterling, T., Driessen, M., Kanitz, R.-D., & Junghanns, K. (2001a). The severity of alcohol withdrawal is not age dependent. *Alcohol Alcohol*, 36(1), 75-78.
- Wetterling, T., Driessen, M., Kanitz, R.-D., & Junghanns, K. (2001b). The severity of alcohol withdrawal is not age dependent. *Alcohol and Alcoholism*, 36(1), 75-78. doi:10.1093/alcalc/36.1.75
- Whelan, G. (2003). *Alcohol: a much neglected risk factor in elderly mental disorders*. *Current Opinion in Psychiatry*, 16(6), 609-614.
- Wojnar, M., Wasilewski, D., migrodzka, I., & Grobel, I. (2001). Age-related differences in the course of alcohol withdrawal in hospitalized patients. *Alcohol and Alcoholism*, 36(6), 577-583. doi:10.1093/alcalc/36.6.577
- Wu, L.-T., & Blazer, D. G. (2011). Illicit and Nonmedical Drug Use Among Older Adults: A Review. *Journal of Aging and Health*, 23(3), 481-504. doi:10.1177/0898264310386224
- Zbikowski, S. M., Magnusson, B., Pockey, J. R., Tindle, H. A., & Weaver, K. E. (2012). *A review of smoking cessation interventions for smokers aged 50 and older*. *Maturitas*, 71(2), 131-141. doi:http://dx.doi.org/10.1016/j.maturitas.2011.11.019

Service delivery and implementation

- All Party Parliamentary Group on Complex Needs and Dual Diagnosis (2016) Minutes from the 31st All Party Parliamentary Group on Complex Needs and Dual Diagnosis meeting on 'Older People', http://www.turning-point.co.uk/media/1138393/appg_older_people_meeting_minutes.pdf & http://www.turning-point.co.uk/media/1138454/appg_older_people_update_july_2016_v2.pdf (Accessed 8 Feb.2018)
- Andrews, T., Reddy L, and Whelan, P. (2011) "Addressing the needs of older people with co morbid alcohol and mental health disorders: a case series from a London Community Mental Health Team (CMHT)", *Advances in Dual Diagnosis*, 4 (1) 8-16, <https://doi.org/10.1108/17570971111155577>
- Baker, M. and Jeffers, H. (2016) Responding to the needs of patients with multi morbidity- A vision for general practice <http://www.rcgp.org.uk/-/media/Files/Policy/A-Z-policy/RCGP-Responding-to-needs-of-Multimorbidity-2016.ashx?la=en> (Accessed 8 Feb.2018)
- Ballinger, M. L., Talbot, L. A. and Verrinder, G. K. (2009), 'More than a place to do woodwork: a case study of a community-based Men's Shed', *Journal of Men's Health* 6, 20-27
- Care Quality Commission (2016) Building Bridges, Breaking Barriers Integrated care for older people: <http://www.cqc.org.uk/publications/themed-work/building-bridges-breaking-barriers-integrated-care-older-people> (Accessed 8 Feb. 2018)
- Care Quality Commission (2017) Briefing: Substance Misuse Services the quality and safety of residential detoxification <https://www.cqc.org.uk/publications/themed-work/briefing-substance-misuse-services> (Accessed 8 Feb.2018)
- Connelly P and Perera N, (2013) Developing an ideal old age service https://www.rcpsych.ac.uk/docs/final_june_DEVELOPING_AN_IDEAL_OLD_AGE_SERVICE_final_inc_Exec_comments.docx (Accessed 8 Feb. 2018)
- CQUIN guidance for 2016/2017, NHSE March 2016 <https://www.england.nhs.uk/wp-content/uploads/2016/03/cquin-guidance-16-17-v3.pdf> (Accessed 8.Feb. 2018)
- CQUIN guidance for 2017/2019, NHSE Nov 2016, <https://www.england.nhs.uk/nhs-standard-contract/cquin-17-19/> (Accessed 8.Feb. 2018)
- Come I., Li, T.-K., Rao, R. and Wu, L.-T. (2012), Alcohol limits in older people. *Addiction*, 107: 1541–1543. doi:10.1111/j.1360-0443.2012.03854.x
- Crome, I. Wu, L. Rao, R. (T.) & Crome, P.(Eds.) (2015) Substance use and older people. Oxford: Wiley-Blackwell.
- D'Agostino et al., 2006 *Community interventions for older adults with comorbid substance abuse: The Geriatric Addictions Program (GAP)*, *Journal of "dual diagnosis"*, July 2006
- Department of Health and the devolved administrations. 2017. *Drug Misuse and Dependence: UK Guidelines on Clinical Management*. London: Department of Health, the Scottish Government, Welsh Assembly Government and Northern Ireland Executive <https://www.gov.uk/government/publications/drug-misuse-and-dependence-uk-guidelines-on-clinical-management> (Accessed 29 Jan. 2018)
- DrugScope (2014) It's about time: Tackling substance misuse in older people: a briefing by DrugScope on behalf of the Recovery Partnership <http://www.drugwise.org.uk/wp-content/uploads/its-about-time-report.pdf> (Accessed 11 Feb. 2018)
- Drummond C (2017) Cuts to addiction services are a false economy *BJ* 2017:357:j2704 doi: 10.1136/bmj.j2704
- European Monitoring Centre for Drugs and Drug Addiction (2017) Responding to the needs of the ageing drug user http://www.emcdda.europa.eu/document-library/responding-needs-ageing-drug-users_en (Accessed 11 Feb. 2018)
- Ham C, Curry N (2010) Clinical and Service Integration: The Route to Improved Outcomes. *King's Fund*. <https://www.kingsfund.org.uk/publications/clinical-and-service-integration> (Accessed 9 Feb.2018)
- Harris, L. and Halliday, K. (2013) Primary care drug and alcohol treatment: commissioning and provision against a backdrop of localism, RCGP and SMMGP <http://www.rcgp.org.uk/policy/rcgp-policy-areas/substance-misuse-recovery.aspx> (Accessed 10 Feb 2018)
- Institute of Medicine (2012), *The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands?* Washington, DC: The National Academies Press. <https://doi.org/10.17226/13400>. (Accessed 8 Feb. 2018)
- King V.L., et al (2014) Challenges and outcomes of parallel care for patients with co-occurring psychiatric disorder in methadone maintenance treatment. *Journal of Dual Diagnosis*. 10 (2) 60-67. <https://www.tandfonline.com/doi/abs/10.1080/15504263.2014.906132?journalCode=wjdd20>

- Leutz WN (1999) Five laws for integrating medical and social services; lessons from the United States and United Kingdom. *Milbank Quarterly*, 77 (1): 77–110. doi: 10.1111/1468-0009.00125
- Mathers, N., Patel, V. and Thomas, M. (2012) General Practice and the Integration of Care: An RCGP Policy Report. <http://www.rcgp.org.uk/policy/rcgp-policy-areas/integration-of-care.aspx> (Accessed 8 Feb.2018)
- Mental Health Crisis Care Concordat (2014) <http://www.crisiscareconcordat.org.uk/about/> (Accessed 11 Feb.2018)
- The Mental Health Taskforce (2016), The Five Year Forward View for Mental Health <https://www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf> (Accessed 8 Feb.2018)
- Milligan, C. et al. (2013), Men's Sheds and other gendered interventions for older men: improving health and wellbeing through social activity: A systematic review and scoping of the evidence base Lancaster University Centre for Ageing Research, Lancaster <https://sphr.nihr.ac.uk/wp-content/uploads/2014/12/SPHR-LIL-PH1-MIS-Age-UK-brief-report-FINAL.pdf> (Accessed 8 Feb. 2018)
- NHS England (2016) Achieving Better Access to 24/7 Urgent and Emergency Mental Health Care – Part 2: Implementing the Evidence-based Treatment Pathway for Urgent and Emergency Liaison Mental Health Services for Adults and Older Adults – Guidance, <https://www.england.nhs.uk/wp-content/uploads/2016/11/lmhs-guidance.pdf> (Accessed 8 Feb. 2018)
- Public Health Agency Northern Ireland, (2017) Director of Public Health Annual Report 2016 additional-tables <http://www.publichealth.hscni.net/publications/director-public-health-annual-report-2016-and-additional-tables> (Accessed 8 Feb.2018)
- Public Health England, (2017) Better care for people with co-occurring mental health and alcohol/drug use conditions: A guide for commissioners and service providers, <https://www.gov.uk/government/publications/people-with-co-occurring-conditions-commission-and-provide-services> (Accessed 8 Feb.2018)
- Rakshi et al, (2011), How can older people's mental health services in the UK respond to the escalating prevalence of alcohol misuse among older adults? *Advances in Dual Diagnosis*, 4, (1) 17-27 <https://doi.org/10.1108/17570971111155586>
- Rao and Shanks, (2011) Development and implementation of a "dual diagnosis" strategy for older people in south east London, *Advances in Dual Diagnosis*, 4, (1) 28-35 <https://doi.org/10.1108/1757097111155595>
- Rao, 2011, Guest Editorial, Older people and "dual diagnosis" – out of sight, but not out of mind, *Advances in Dual Diagnosis*, 4, (1) <https://doi.org/10.1108/add.2011.54104aaa.001>
- Royal College of Psychiatrists (2012) CR173. *Delivering Quality Care for Drug and Alcohol Users: the Roles and Competencies of Doctors* <http://www.rcpsych.ac.uk/usefulresources/publications/collegereports/cr/cr173.aspx> (Accessed 8 Feb.2018)
- Royal College of Psychiatrists (2012), Enabling people with mild intellectual disability and mental health to access healthcare services, CR 175. <http://www.rcpsych.ac.uk/usefulresources/publications/collegereports/cr/cr175.aspx> (Accessed 8 Feb. 2018)
- al College of Psychiatrists (2016) Old Age Faculty Report, FR/OA/05 Integration of care and its impact on older people's mental health. <http://www.rcpsych.ac.uk/workinpsychiatry/faculties/oldagepsychiatry/resources.aspx> (Accessed 8.Feb. 2018)
- Royal College Of Psychiatrists (2017) A Briefing on the Mental Health Workforce Plan for England http://www.rcpsych.ac.uk/pdf/rcpsych_hee_workforce_plan_briefing.pdf (Accessed 11 Feb. 2018)
- Wessely, S. (2017) 1,000 more psychiatrists needed to tackle 'unacceptable failings' in care <http://www.telegraph.co.uk/news/2017/06/25/1000-psychiatrists-needed-tackle-unacceptable-failings-care/> (Accessed 8 Feb.2018)
- Wilberforce M, et al (2016) Is integrated care associated with service costs and admission rates to institutional settings? An observational study of community mental health teams for older adults in England. *International Journal of Geriatric Psychiatry*,31 (11), 1208-1216 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5108488/>

Education and training

- All Party Parliamentary Group on Complex Needs and Dual Diagnosis (2016) Minutes from the 31st All Party Parliamentary Group on Complex Needs and Dual Diagnosis meeting on 'Older People', http://www.turning-point.co.uk/media/1138393/appg_older_people_meeting_minutes.pdf & http://www.turning-point.co.uk/media/1138454/appg_older_people_update_july_2016_v2.pdf (Accessed 8 Feb. 2018)
- General Medical Council (2017) Adapting for the future. A plan for improving the flexibility of UK Postgraduate Medical Training. http://allcatsrgrey.org.uk/wp/wpfb-file/adapting_for_the_future_a_plan_for_improving_the_flexibility_of_uk_postgraduate_medical_training_final-pdf_69842348-pdf/ (Accessed 8 Feb. 2018)
- Anderson, D. B. *et al* (2009). The need to tackle age discrimination in mental health. Royal College of Psychiatrists.
- Andrews, T., Reddy L, and Whelan, vP. (2011) "Addressing the needs of older people with co morbid alcohol and mental health disorders: a case series from a London Community Mental Health Team (CMHT)", *Advances in Dual Diagnosis*, 4 (1) 8-16, <https://doi.org/10.1108/17570971111155577>
- Betancourt, J. (2006). *Cultural competency in medical education. Academic Medicine* , 81 (6), 499-501.
- Betancourt, J., & Alexander, R. (2010). Linking Cultural Competence Training to Improved Health Outcomes: Perspectives from the field. *Academic Medicine* , 85 (4), 583-583.
- British Medical Association. (2017). *Shape of Training Review*. <https://www.bma.org.uk/collective-voice/policy-and-research/education-training-and-workforce/shape-of-training-review> (Accessed 8 Feb 2018)
- Carter, R. (2015, April 23). www.communitycare.co.uk. Retrieved from *Community Care*.
- Connolly, P. P. (2012). *Developing an Ideal Old Age Service*. Royal College of Psychiatrists
- Crome, I.B. & Crome, P. (2018) Alcohol and age. *Age and Ageing* <https://doi.org/10.1093/ageing/afx191> (Accessed 20.Jan 2018)
- Crome, I. (2012). *Alcohol limits in older people* *Addiction* , 107, 1541-1543. doi:10.1111/j.1360-0443.2012.03854.x
- Crome, I. B. (2004). *Undergraduate medical school education in substance misuse in Britain iii: can medical students drive change?* *Drugs: Education, Prevention and Policy* , 11 (6), 483-503.
- Crome, I. (1999). *The trouble with training: substance misuse in British Medical Schools revisited. What are the issues?* *Drugs Education and Prevention Policy* (6), 111-123.
- Department of Health. (2010). *Drug Strategy 2010 reducing demand, restricting supply , building recovery: supporting people to build a drug free life*.
- DrugScope (2014) It's about time: Tackling substance misuse in older people: a briefing by DrugScope on behalf of the Recovery Partnership <http://www.drugwise.org.uk/wp-content/uploads/its-about-time-report.pdf> (Accessed 11 Feb. 2018)
- Fitch, C. M. (2008). *Assessing psychiatric competencies: what does the literature tell us about methods of workplace-based assessment?* *BJPsych Advances* , 14 (2), 122-130.
- General Medical Council. (2017). *Adapting for the future; a plan for improving the flexibility of postgraduate medical training*. http://allcatsrgrey.org.uk/wp/wpfb-file/adapting_for_the_future_a_plan_for_improving_the_flexibility_of_uk_postgraduate_medical_training_final-pdf_69842348-pdf/ (Accessed 8 Feb 2018)
- General Medical Council. (2017). *Excellence by Design: standards for postgraduate curricula*. https://www.gmc-uk.org/education/postgraduate/standards_for_curricula.asp (Accessed 8 Feb 2018)
- General Medical Council. (2013). *Good Medical Practice*. https://www.gmc-uk.org/guidance/good_medical_practice.asp (Accessed 8 Feb 2018)
- General Medical Council. (2015). *Outcomes for Graduates*. https://www.gmc-uk.org/education/undergraduate/undergrad_outcomes.asp (Accessed 8 Feb 2018)
- General Medical Council. (2015). *Promoting excellence: standards for medical education and training*. <https://www.gmc-uk.org/education/standards.asp> (Accessed 8 Feb 2018)
- General Medical Council. (2015). *Report of the GMC Credentialing Working Group*. https://www.gmc-uk.org/education/continuing_professional_development/27258.asp (Accessed 8 Feb 2018)
- General Medical Council. (2017). *Standards for curricula and assessment systems*. https://www.gmc-uk.org/Standards_for_curricula_and_assessment_systems_1114_superseded_0517.pdf_48904896.pdf (Accessed 8 Feb.2018)

- General Medical Council. (2003). *Tomorrow's Doctors*. https://www.gmc-uk.org/Tomorrow_s_Doctors_1214.pdf_48905759.pdf (Accessed 8 Feb 2018)
- General Medical Council/ Academy of Medical Royal Colleges. (2017). *Generic Professional Capabilities Guidance on implementation for colleges and faculties*. <https://www.gmc-uk.org/education/23581.asp> (Accessed 8 Feb 2018)
- Glass, I. (1989). *Undergraduate training in substance misuse in the United Kingdom*. *British Journal of Addiction* (84), 1539-1542.
- Goodair C and Crome I (2014) Improving the Landscape of Substance Misuse Teaching in Undergraduate Medical Education in English Medical Schools from Concept to Implementation. *Canadian Journal of Addiction*, 5 (3) 5-10
- Greenaway, D. (2013). *Securing the future of excellent care. Shape of Training Independent Review*. <https://www.shapeoftraining.co.uk/review/1728.asp> (Accessed 8 Feb 2018)
- Greenaway, D. (2013). *Securing the future of excellent patient care; Final report of the independent review led by Professor David Greenaway*. Department of Education.
- Health Education England. (2017). *Stepping Forward to 2020/21: Mental Health Workforce Plan for England*. <https://www.hee.nhs.uk/our-work/mental-health> (Accessed 8 Feb 2018)
- Ikram, U., & Suurmond, J. (2015). How we developed an effective e-learning module for medical students on using professional medical interpreters. *Medical Teacher*, 422-427.
- International Centre for Drug Policy. (2012). *Substance in the Medical Undergraduate Curriculum Report*. St George's, University of London. <https://www.sgul.ac.uk/research/population-health/our-projects/substance-misuse-in-the-undergraduate-medical-curriculum> (Accessed 8 Feb 2018)
- Kumar, A. (2017). *Medical student Intervention to promote effective nicotine dependence and tobacco Healthcare (MIND-THE-GAP): single centre feasibility randomised trial results*. *BMC Medical Education*, 17 (249).
- Narey, M. (2014). *Making the education of social workers consistently effective. Report of Sir Martin Narey's independent review of the education of children's social workers*. Department for Education. <https://www.gov.uk/government/publications/making-the-education-of-social-workers-consistently-effective> (Accessed 8 Feb 2018)
- NHS England. (2015). *Guidance for NHS Commissioners on equality, health inequality and legal duties*. www.england.nhs.uk/wp-content/uploads/2015/12/hlth-inqual-guid-comms-dec15.pdf (Accessed 8 Feb 2018)
- Nursing and Midwifery Council. (2010). *Standards for pre-registration nursing training*. <https://www.nmc.org.uk/standards/additional-standards/standards-for-pre-registration-nursing-education/> (Accessed 8 Feb 2018)
- Ostler, J. et al (2012). Physicians Assistants- friends or foes to doctors? *BMJ Careers*. <http://careers.bmj.com/careers/advice/view-article.html?id=20008022>
- Public Health Agency NI. (2016). *Alcohol, drugs and older people*. DHSSPSNI. http://www.publichealth.hscni.net/sites/default/files/alcohol_drugs_older_people_booklet.pdf (Accessed 8 Feb 2018)
- Public Health England. (2017, June). *Better care for people with co-occurring mental health and alcohol/drug use conditions*. <https://www.gov.uk/government/publications/people-with-co-occurring-conditions-commission-and-provide-services> (Accessed 8 Feb 2018)
- Rao, R. (2006) *Alcohol misuse and ethnicity* *British Medical Journal*, 332, 682.
- RCPsych Prizes and Bursaries for Trainees. (2016). *Royal College of Psychiatrists*: <http://www.rcpsych.ac.uk/traininpsychiatry/trainees/prizes.aspx> (Accessed 11 Feb 2018)
- Royal College of Psychiatrists. (2016). *A Competency Based Curriculum for Specialist Training in Psychiatry: Sub-speciality endorsement in Liaison Psychiatry Curriculum*. https://www.rcpsych.ac.uk/pdf/Liaison_Psychiatry_Curriculum_March_2016.pdf (Accessed 11 Feb 2018)
- Royal College of Psychiatrists. (2015). *A Competency Based Curriculum for Specialist Training in Psychiatry: Specialist in General Psychiatry with Sub-speciality Endorsement in Substance Misuse Psychiatry*. https://www.rcpsych.ac.uk/pdf/TW_TR_Substance_Misuse_Psychiatry_Curriculum_August_2017.pdf (Accessed 8 Feb 2018)
- Royal College of Psychiatrists. (2015). *A Competency Based Curriculum for Specialist Training in Psychiatry: Specialists in Old Age Psychiatry (Revised 2017)*. https://www.gmc-uk.org/Core_Psychiatry_Curriculum_admin_change_September_2017.pdf_71945012.pdf (Accessed 8 Feb 2018)
- Royal College of Psychiatrists. (2012). *Practice Standards for Young People with Substance Misuse Problems*. CCQI. <http://www.rcpsych.ac.uk/pdf/Practice%20standards%20for%20young%20people%20with%20substance%20misuse%20problems.pdf> (Accessed 8 Feb 2018)
- Royal College of Psychiatrists. (2018). *Providing Integrated Care for Older Substance Misusers*. London.

- Royal College of Psychiatrists. The *National Audit of Dementia*. CCQI. <http://www.rcpsych.ac.uk/quality/nationalclinicalaudits/dementia/nationalauditofdementia.aspx> (Accessed 8 Feb 2018)
- Royal College of Psychiatrists. (2017). *A Briefing on the Mental Health Workforce Plan for England*. http://www.rcpsych.ac.uk/pdf/rcpsych_hee_workforce_plan_briefing.pdf (Accessed 8 Feb 2018)
- Royal College of Psychiatrists. (2011). *The Core Curriculum in Psychiatry*. <https://www.rcpsych.ac.uk/pdf/Undergraduate%20Psychiatry%20Curriculum%202011b.pdf> (Accessed 11 Feb 2018)
- Saxton L, L. S. (2011). *Meeting the training needs of staff working with older people with dual diagnosis*. *Advances in Dual Diagnosis*, 4 (1), 36-46.
- Sosabowski, M. (2008). *Pharmacy Education in the United Kingdom*. *American Journal of Pharmaceutical Education*, 72 (6).
- Sinclair et al (2012) Alcohol and other drugs: core medical competencies. *Final report of the working group of the medical Royal Colleges* <http://orca.cf.ac.uk/69084/> (Accessed 11 Feb. 2018)
- Vernon, D. T., & Blake, R. L. (1993, July). Does problem-based learning work? A meta-analysis of evaluative research. *Academic Medicine* 68(7), 550-63 <https://www.ncbi.nlm.nih.gov/pubmed/8323649>

Ethical and legal considerations for older people with substance misuse

- Adults with Incapacity (Scotland) Act 2000: A short guide to the Act <http://www.gov.scot/Publications/2008/03/25120154/1>
- Arora, A., O'Neill, A., Crome, P., & Martin, F. C. (2015). Clinical medicine and substance misuse: Research, assessments and treatment. In Crome, I. Wu, L. Rao, R. (T.) & Crome, P.(Eds.), *Substance use and older people*. Oxford: Wiley-Blackwell. pp. 35-55
- British Medical Association (2016) *Mental Capacity Act tool kit*. <https://www.bma.org.uk/-/media/files/pdfs/practical%20advice%20at%20work/ethics/mental-capacity-act-toolkit-2016.pdf> (Accessed 9 Jan. 2018)
- Crome, I. & Rao, T. (2018) Older people with substance problems. In Michel, JP et al (eds.) *Oxford textbook of geriatric medicine*. 3rd edn. Oxford: OUP pp.1065-1070
- Crome, P. & Arora A. (2018) Elder Abuse. In Michel, JP et al (eds.) *Oxford textbook of geriatric medicine*. 3rd edn. Oxford: OUP Oxford pp.1071-1078
- De Vleminck, A. & Deliëns, L. (2018) Advance care planning for older people. In Michel, JP et al (ed.) *Oxford textbook of geriatric medicine*. 3rd edn. Oxford: OUP pp.1235-1242
- Department of Health and Social Care (2017). *Terms of Reference – Independent Review of the Mental Health Act 1983*. <https://www.gov.uk/government/publications/mental-health-act-independent-review/terms-of-reference-independent-review-of-the-mental-health-act-1983> (accessed 13 February 2018)
- Galvani, S. et al. (2016). End of life care for people with alcohol and other drug problems: an exploratory study. 10.1136/bmjspcare-2016-001204.23
- Gawande, A. (2014) *Being Mortal: Illness, medicine and what matters in the end*. London: Profile Books.
- General Medical Council. (2008) *A-Z of Ethical Guidance*. https://www.gmc-uk.org/guidance/a_z_guidance.asp (Accessed 29 Jan. 2018)
- Hazelton, L., Sterns, G.L. & Chisholm, T. (2003) Decision-making capacity and alcohol abuse: clinical and ethical considerations in personal care choices. *General Hospital Psychiatry*, 25(2), 130–135
- Kalanithi, P. (2017) *When breath becomes air*. London: Penguin.
- Keene, A. R. (2015) (ed) *Assessment of Mental Capacity*
A Practical Guide for Doctors and Lawyers. 4th edn. London: British Medical Association and The Law Society.
- Medical Defence Union (2017). *An introduction to testamentary capacity* <https://www.themdu.com/guidance-and-advice/guides/medico-legal-guide-to-testamentary-capacity---introduction> (Accessed 29 Jan 2018)
- Mental Capacity Act Code of Practice. Office of the Public Guardian (2007) <https://www.gov.uk/government/publications/mental-capacity-act-code-of-practice>

Mental Capacity Act (Northern Ireland 2016) <http://www.legislation.gov.uk/nia/2016/18/contents/enacted> (accessed 14.2.2018)

Rao R. (2006) *Alcohol misuse and ethnicity* *BMJ* 332:682 doi: <https://doi.org/10.1136/bmj.332.7543.682>

Rao, R., Wolff, K. & Marshall, E.J. (2008) Alcohol use and misuse in older people: a local prevalence study comparing English and Irish inner-city residents living in the UK. *Journal of Substance Use*, 13, 17–26. <https://www.tandfonline.com/doi/abs/10.1080/14659890701639824>

Sullivan, M. P.(2014). *Use as Abuse: A Feasibility Study of Alcohol-related Elder Abuse*, <http://alcoholresearchuk.org/alcohol-insights/use-as-abuse-a-feasibility-study-of-alcohol-related-elder-abuse/> (Accessed 11 Feb. 2018)

Wadd, S et al (2014). *Alcohol misuse and cognitive impairment in older people: An exploratory study*. <http://alcoholresearchuk.org/alcohol-insights/alcohol-misuse-and-cognitive-impairment-in-older-people-an-exploratory-study/> (Accessed 11 Feb. 2018)

World Health Organization (2006). *Alcohol and elder abuse. Alcohol and interpersonal violence policy brief*. Geneva, WHO. http://www.who.int/violence_injury_prevention/violence/world_report/factsheets/ft_elder.pdf (Accessed 29 Jan. 2018)

Research and development

Cherubini, A. and Gasperini, B., (2017) 'How to increase the participation of older subjects in research: good practices and more evidence are needed!' *Age and Ageing*, 46 (6), 878–881, doi:10.1093/ageing/afx123

Crome, I. Wu, L. Rao, R. (T.) & Crome, P.(eds.) (2015) *Substance use and older people*. Oxford: Wiley-Blackwell

Corrigan P, W. et al (2017) 'Are some of the stigmas of addictions culturally sanctioned?' *British Journal of Psychiatry*, 210 (3)180-1 DOI: 10.1192/bjp.bp.116.185421

Corrigan PW (2017) Authors' reply *British Journal of Psychiatry* 211 (6) 400 doi:10.1192/bjp.211.6.400a

Coulton S Bland M Crosby H et al (2017) 'Effectiveness and cost effectiveness of opportunistic screening and stepped care interventions for older alcohol users in primary care' *Alcohol and Alcoholism*, 52 (6) 655-664 doi: 10.1093/alcalc/agx065

Ginn S,K. & Clark E. (2017) 'The medical profession and stigma against people who use drugs', *British Journal of Psychiatry*, 211 (6) 400 doi: 10.1192/bjp.211.6.400

Matheson C & Liddle D (2017) Older people with drug problems in Scotland: A mixed methods study exploring health and social support needs. *Scottish Drugs Forum*. <http://sdf.org.uk/resource-type/older-drug-users/> (Accessed 29 Jan. 2018)

Neale J., Bouteloup A., Getty M et al (2017) 'Why we should conduct research in collaboration with people who use alcohol and other drugs?' *Addiction* 112 (12) 2084-2085 doi: 10.1111/add.14015

Royal College of Psychiatrists (2011) *Our Invisible Addicts* (CR165). *Royal College of Psychiatrists*. <http://www.rcpsych.ac.uk/files/pdfversion/cr165.pdf> (Accessed 29 Jan. 2018)

Royal College of Psychiatrists (2015) *Substance Misuse in Older People. An Information Guide*. London: Royal College of Psychiatrists. <https://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People%20an%20information%20guide.pdf> (Accessed 20 Jan. 2018)

Conclusion

Advisory Council on the Misuse of Drugs (2017) *Commissioning impact on drug treatment* <https://www.gov.uk/government/publications/commissioning-impact-on-drug-treatment> (Accessed 29 Jan. 2018)

Alcohol Research, UK (2011) *Working with Older Drinkers: Alcohol Insight No.85* <http://alcoholresearchuk.org/alcohol-insights/working-with-older-drinkers/> (Accessed 29 Jan. 2018)

Babor T et al (2010) *Drug Policy and the Public Good*. Oxford: OUP.

Babor T et al (2010) *Alcohol no ordinary commodity*, 2nd edn. Oxford: OUP.

- Big Lottery Fund (2014) Booze without the blues <https://bigblog.org.uk/2014/11/07/booze-without-blues/> (Accessed 8 Feb. 2018)
- Care Quality Commission (2017) Briefing: Substance Misuse Services the quality and safety of residential detoxification <https://www.cqc.org.uk/publications/themed-work/briefing-substance-misuse-services> (Accessed 8 Feb.2018)
- Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group. (2017). *Drug misuse and dependence: UK guidelines on clinical management*. <https://www.gov.uk/government/publications/drug-misuse-and-dependence-uk-guidelines-on-clinical-management> (Accessed 29 Jan. 2018)
- Crome, I. Wu, L. Rao, R. (T.) & Crome, P.(eds.) (2015) Substance use and older people. Oxford: Wiley-Blackwell
- Drink Wise Age Well (2016). *Putting our programmes into practice* <https://drinkwiseagewell.org.uk/937-2/> (Accessed 8 Feb. 2018)
- Drummond C. (2017) Cuts to addiction services are a false economy *BMJ* 2017; 357:j2704 doi: <https://doi.org/10.1136/bmj.j2704> (Accessed 8 Feb. 2018)
- Equality Act 2010, c. 15. London: The Stationery Office. <https://www.gov.uk/guidance/equality-act-2010-guidance#equality-act-provisions-commencement-dates> (Accessed 8 Feb. 2018)
- Givel, M. (2015) 'Proposals for policy development: Tobacco' in Crome IB et al (eds) Substance Use and Older People Oxford: Wiley Blackwell pp 372-382
- Hingson R. and Li, T.K (2015) 'Proposals for alcohol related policy development in the United States' in Crome IB et al (eds) Substance Use and Older People Oxford: Wiley Blackwell pp. 364-371
- Home Office (2012) A consultation on delivering the Government's policies to cut alcohol fuelled crime and anti-social behaviour. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/157755/alcohol-consultation-document.pdf (last accessed 29 Jan.2018)
- MacGregor, .S (2015) 'Proposals for policy developments: Drugs' in Crome IB et al (eds) Substance Use and Older People, Oxford: Wiley Blackwell pp 353-363
- Morris-Williams Z.,et al (2012) Teaching postgraduates about managing drug and alcohol misuse. *BMJ* 345 e5816 doi: 10.1136/bmj.e5816.
- Nicholson, D., McCormack, F., Seaman, P., Bell, K., Duffy, T., & Gilhooly, M. (2017). Alcohol and healthy ageing: a challenge for alcohol policy. *Public Health*, 148, 13-18.
- Royal College of Psychiatrists (2012) CR173. *Delivering Quality Care for Drug and Alcohol Users: the Roles and Competencies of Doctors* <http://www.rcpsych.ac.uk/usefulresources/publications/collegereports/cr/cr173.aspx> (Accessed 8 Feb.2018)
- Royal College of Psychiatrists (2011). *Our Invisible Addicts. First Report of the Older Persons' Substance Misuse Working Group of the Royal College of Psychiatrists*. London: Royal College of Psychiatrists. <http://www.rcpsych.ac.uk/files/pdfversion/cr165.pdf> (Accessed 20 Jan.2018)
- Royal College of Psychiatrists (2015) Substance Misuse in Older People. An *Information Guide*. London: Royal College of Psychiatrists. <https://www.rcpsych.ac.uk/pdf/Substance%20misuse%20in%20Older%20People%20an%20information%20guide.pdf> (Accessed 20 Jan. 2018)
- Scottish Drugs Forum (2017) Older People with Drug Problems in Scotland: Addressing the needs of an ageing population Final Report <http://www.sdf.org.uk/resource-type/all-sdf-publications/> (Accessed 8 Feb. 2018)
- Scottish Government. *Alcohol (Minimum Pricing) (Scotland) Act 2012*. http://www.legislation.gov.uk/asp/2012/4/pdfs/asp_20120004_en.pdf (Accessed 17 Nov. 2017)
- Wadd S Holley-Moore G Riaz A Jones R (2017) Calling time – addressing ageism and age discrimination in alcohol research, policy and practice file:///C:/Users/user/Downloads/DWAW_Yr3_Report-FOR-WEB4.pdf (Accessed 8 Feb 2018)
- Welsh Government (2017) Public Health (Minimum Price for Alcohol) (Wales) Bill. <http://www.assembly.wales/laid%20documents/pri-ld11246-em/pri-ld11246-em-e.pdf> (Accessed 8 Feb. 2018)
- Willmore J, Marko T-L, Taing D, Sampasa-Kanyinga H (2017) The burden of alcohol-related morbidity and mortality in Ottawa, Canada. *PLoS ONE* 12(9): e0185457.

Appendix

Some examples of evidence-based guidelines

We have included many of the NICE Guidelines throughout the document and here outline some of the more recent NICE guidelines that made reference – usually briefly – to the older population:

NICE PH 24 (2010) Alcohol use disorders - prevention:

This guideline included the older population (along with the unemployed and individuals with lower levels of education, social class and income) as one of the population groups specifically affected by price increases and reduction in harms. <https://www.nice.org.uk/guidance/ph24>

NICE CG 115 (2011) Alcohol use disorders: diagnosis assessment and management of harmful drinking and alcohol dependence

noted that alcohol misuse is under-identified, especially in older people, by healthcare professionals, leading to missed opportunities to offer appropriate interventions. It suggested that when assessing the severity of alcohol dependence and determining the need for assisted withdrawal, the criteria for older people should be adjusted, and a lower threshold for admission to in-patient or residential units. One of the barriers to effective intervention relevant to the older population is the risk that people who are housebound wait longer to access specialist treatment. This is compounded by the fact that only few people who are dependent on alcohol received treatment. This is due to long period between developing alcohol dependence and seeking help and also limited availability of specialist alcohol treatment services. <https://www.nice.org.uk/guidance/cg115>

NICE NG 22 (2015) Older people with social care needs and multiple long-term conditions:

In this guideline, a person with social care needs is defined as someone needing personal care and other practical assistance because of their age, illness, disability, and dependence on alcohol or drugs. Various aspects of social care and collaborative working are explained. Services for older persons are mentioned but no specific emphasis on managing alcohol or substance misuse in older people is described. <https://www.nice.org.uk/guidance/ng22>

NICE NG 58 (2016) Coexisting severe mental illness and substance misuse: community health and social care services.

This stresses that the person's needs need to be reassessed to ensure there is continuity of care when they are at a transition point in their life (e.g. retirement). Particular groups who may need additional support include people who move from

adult to older adult mental health or social services. This guideline highlighted the plight of specific populations including older people with coexisting severe mental illness and substance misuse that are at risk as they may not access or may stop using services.

<https://www.nice.org.uk/guidance/ng58>

Department of Health – Drug misuse and dependence: UK guidelines on clinical management ('Orange' book) 2017: This has a specific section dedicated to older people. It recommended that health practitioners need awareness of substance use in older people to identify and address problems and to understand that they may present with physical or mental health problems in the first instance. Older patients can achieve equivalent or better results than younger adults when they enter treatment for substance misuse. It is important that they have access to effective healthcare services where they will be catered for with dignity and sensitivity. Table 5: (p249) describes special health needs of older people with substance use problems like complications with long-term use of substance, polypharmacy and changes in physiology due to ageing process. <https://www.gov.uk/government/publications/drug-misuse-and-dependence-uk-guidelines-on-clinical-management>

PHE (2016). The Public Health Burden of Alcohol and the Effectiveness and Cost-Effectiveness of Alcohol Control Policies: An evidence review. This report clarifies that not all alcohol-related crime and disorder gets reported to the police and levels of reporting tend to be higher in older people. 'Recent further analysis has shown that, in the UK, any potential protective effects seems mainly relevant to older age groups, particularly to women, and the peak of any protective effect is achieved at very low levels of consumption, around one unit of alcohol per day'. Further studies revealed that even moderate drinking can be harmful to older people and should be handled sensibly. <https://www.gov.uk/government/publications/the-public-health-burden-of-alcohol-evidence-review>

PHE (2017) Better care for people with co-occurring mental health and alcohol/drug use conditions: A guide for commissioners and service providers. This guideline covers all ages (children to adults, including older adults). This recommends that care pathways should meet the specific needs of older people. This guideline highlights the special needs of older people with co-occurring conditions. These include being on multiple medications, requiring age-sensitive treatment such as support with the sensory, cognitive and physical problems, and needing interventions at a slower pace, involving repetition and provision of written information. In addition, it further recommends that mental health services for older adults should provide integrated care with support from alcohol and drug services. The provision of skilled assessment, treatment and recovery-focused care should take into account the need for multiple assessments. <https://www.gov.uk/government/publications/people-with-co-occurring-conditions-commission-and-provide-services>

Abbreviations

ACE	Addenbrookes Cognitive Examination
ACMD	Advisory Council on the Misuse of Drugs
ADLs	Activities of Daily Living
ARBD	Alcohol Related Brain Damage
ARCP	Annual Review of Competence Progression
ARD	Alcohol Related Dementia
AUDIT	Alcohol Use Disorders Identification Test
BMA	British Medical Association
BME	Black and Minority Ethnic
BBVs	Blood-borne viruses
C2ME	Culturally Competent in Medical Education
CAGE	A widely-used screening test for problem drinking and potential alcohol problems. Its <i>name is an acronym of the starting letters of its four questions.</i>
CALC	Centre for Advanced Learning and Conferences
CARPS	Computerised Alcohol-Related Problems Survey
CASC	Clinical Assessment of Skills and Competencies
CBT	Cognitive Behaviour Therapy
CCG	Clinical Commissioning Groups
CCT	Certificate of Completion of Training
CMHT	Community Mental Health Team
COP	Court of Protection
COPD	Chronic obstructive pulmonary disease
CPD	Continuing Professional Development
CQC	Care Quality Commission
CQUIN	Commissioning for quality and innovation
CST	Certificate of Specialist Training
DAPA-PC	Drug Abuse Problem Assessment for Primary Care
DoLs	Deprivation of Liberty Safeguards
DSM	Diagnostic and Statistical Manual
DWAW	Drink Wise Age Well
EBTP	Evidence based treatment pathways
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
GAP	Gerontology Alcohol Project
GET SMART	Geriatric Evaluation Team: Substance Misuse/Abuse Recognition and Treatment
GMC	General Medical Council
HCV	Hepatitis C Virus
HLAYA	Healthy Living as You Age
ICD	International Classification of Diseases
ICDP	International Centre for Drug Policy
IMCA	Independent Mental Capacity Advocate
ISAJE	International Society of Addiction Journal Editors
KS	Korsakoff's Syndrome
LETB	Local Education and Training Board

LPA	Lasting Power of Attorney
MCA	Mental Capacity Act
MDU	Medical Defence Union
MHA	Mental Health Act
MHOAD	Mental Health of Older Adults and Dementia Clinical Academic Group
MMSE	Mini-Mental State Examination Examination
MRCPsych	Member of the Royal College of Psychiatrists
MRI	Magnetic Resonance Imaging
MUP	Minimum Unit Pricing
NICE	National Institute for Health and Clinical Excellence
NIHR	National Institute of Health Research
OAR	Ages specific residential programme
OASIS	Older Adults Support in Southwark
OCT	Over the counter medication
OPMH	Older People's Mental Health
OST	Opiate substitution treatment
PBL	Problem-based Learning
PBr	Payment by results
PHE	Public Health England
POELT	Prison Officer Entry Level Training
PQIP	Professional Qualification in Probation (PQIP)
PRISM-E or the Elderly	Primary Care Research in Substance Abuse and Mental Health f
Project GOAL	Guiding Older Adult Lifestyles
RCGP	Royal College of General Practitioners
RCPsych	Royal College of Psychiatrists
RCT	Randomised controlled trial
SLAM	South London and Maudsley NHS Foundation Trust
SSA	Society for the Study of Addiction
SSC	Student Selected Component
SUD	Substance Use Disorder
TDM	Telephone Disease Management
TPD	Training Programme Director
TrOn	Trainees Online
WKS	Wernicke-Korsakoff's Syndrome

Glossary

Addiction

A condition involving use of a substance, such as a drug or alcohol, or engagement in a behaviour, such as gambling, in which a person has strong cravings, is unable to stop or limit the activity, continues the activity despite harmful consequences, and experiences distress upon cessation. It is associated with both harm and a lifestyle that results in loss of control over a person's everyday functioning and role.

Analgesic

A drug that treats pain.

Brief intervention

A technique used to initiate change for an unhealthy or risky behaviour such as smoking, or alcohol misuse. As an alcohol intervention it is typically targeted to non-dependent drinkers whose drinking may still be harmful. They are usually short (5-30 minutes) one to one sessions and often consist of informal counselling and information on certain types of harms and risks associated with substance use and/or risky behaviours.

Commissioning

The process of planning, agreeing and monitoring services.

Deprivations of Liberty Safeguards (DoLS)

An independent and objective process applied to hospitals and care homes to ensure that restriction of a person's movements is done in their best interest.

Demography

The study of size, structure and change in populations (including factors such as age and sex).

E-cigarettes

An electronic device that vaporises a nicotine-containing solution for inhalation.

Endoscopy

The use of a flexible telescope to visualise the inside of the body (usually the gastro-intestinal system)

Epidemiology

The study of the distribution and determinants of health-related states or disorders.

Liver ultrasound

A form of diagnostic imaging that relies on the sound waves reflected from the surface of a body organ to look for abnormalities

Minimum unit pricing

A minimum price applied per unit of alcohol, below which it is illegal to sell an alcoholic drink

MRI

Also called Magnetic Resonance Imaging. A form of diagnostic imaging that relies on the movement of water molecules to build up a picture of part or parts of the body to look for abnormalities

Naturalistic study

The study of a behaviour or disorder in its natural environment without any additional intervention (e.g. the study of progression of a disorder).

Opioid and Opiates

Opiates are substances derived purely from naturally occurring plants (e.g. heroin, morphine and codeine).

Opioids are substances not derived purely from naturally occurring plants (e.g. buprenorphine, fentanyl and oxycodone).

The term "opioids" is now used increasingly to describe both opiates and opioids.

Patient

A person receiving healthcare.

Pharmacokinetic and pharmacodynamics

Pharmacokinetics is the study of what the body does to drugs (i.e. absorption, distribution, metabolism and excretion)

Pharmacodynamics is the study of what drugs do to the body (i.e. the effect of binding to receptors).

Prevalence

The proportion of people with a problem or disorder in a population at risk of developing that problem or disorder (e.g. the prevalence of drinking in a population that drinks alcohol).

QTc

The QT interval is a measure of the time between the start of the Q wave and the end of the T wave. A lengthened QT interval is a marker for the potential of ventricular tachyarrhythmias and a risk factor for sudden death. QTc is the corrected QT interval which estimates the QT interval at a heart rate of 60 beats per minute.

Quintile

A fifth (20 per cent) of a whole (e.g. highest quintile is the highest 20 per cent).

Randomised Controlled Trial (RCT)

A research method to assess treatment outcomes that avoids bias in study design.

Substance misuse

Substance misuse is the harmful use of substances. (like drugs and alcohol) for non-medical purposes. The term “substance misuse” often refers to illegal drugs. However, legal substances can also be misused, such as alcohol, prescription medications, caffeine, nicotine and volatile substances (e.g. petrol, glue, paint).

Testamentary capacity

Mental Capacity to make a valid will.

Twelve-Step Programme

A group therapy approach to encourage abstinence from alcohol based on a model developed by Alcoholics Anonymous.

Unit of alcohol

In the UK, one alcohol unit is measured as 10ml or 8g of pure alcohol. This equals one 25ml single measure of whisky (ABV 40%), or a third of a pint of beer (ABV 5-6%) or half a standard (175ml) glass of red wine (ABV 12%).

Models of service delivery

The current evidence base for assessment and management of substance misuse in older adults is growing. A few examples of established and evidence-based practice useful in setting up a service are suggested below. It must be noted that the examples are of elements of treatment services working together which could be used to build a comprehensive model of care for co-occurring mental, physical and substance misuse disorders. No single comprehensive model is operational to inform current practice.

Evidence-based specialist treatment services

Older Adults Support in Southwark (OASIS) was a commissioned specialist homecare rehabilitation service that provided flexible and intensive support for older mental health patients with complex needs. Staff developed key competencies engaging those with ‘dual diagnosis’ and this was associated with a drop in alcohol-related admissions with ‘dual diagnosis’ from 50% to 5% between 2005 and 2009, when funding was withdrawn (Connolly, 2012). The legacy of OASIS has been new and effective models for intervention by community mental health teams in Southwark that act as a model for practical sustainable service development.

Fibroscan Services

North London substance misuse services developed an innovative service with gastroenterology services in the local general hospital. Patients with alcohol misuse would not engage further with GP services to carry out basic blood tests to assess their baseline liver function. Motivation to engage in treatment can also be variable in this group. The substance misuse service approached the gastroenterology service to provide a fibroscan service within the substance misuse service. This was facilitated by a nurse from the gastro-enterology service visiting the substance misuse service twice per week where she would opportunistically offer patients the fibroscan service.

The benefits of this was that patients became more receptive to having a conversation about the effects of alcohol on their livers as well as the effect of obesity. They also were more willing to engage with their GP services to have their baseline liver functions assessed. An additional benefit was being able to have a repeat fibroscan once weight had been lost or alcohol consumption had ceased. They also engaged with their GPs for conversations about their lifestyle in other areas. Early cases of cirrhosis were also picked up and managed by the gastro-enterology team.

Capital Card

The Capital Card scheme is run by the WDP which is a charity provider of substance misuse services primarily based in the London area. The capital card is a contingency management-based reward point scheme operating like a supermarket loyalty card.

Patients get points based on attending services, groups and having BBV screens. Points can be earned in any number of ways which are customisable to the service. These could include stopping smoking, losing weight, community service and volunteering. Points can be redeemed at local retailers and service providers such as gyms, barbers, hair and nail salons, charity clothes shops, online education courses etc.

The whole process is entirely electronic: Like with supermarket loyalty cards, the Capital Card is swiped to have points added to it, and swiped again at the Point-spend outlet to spend the points. The points can be monitored by smartphone, if the patient has one, or can be viewed each time the card is swiped.

While this card is mainly used in substance misuse services it could easily be used to promote healthy lifestyles and community engagement work within GP services, secondary healthcare services and in older people's mental health services.

MHOA&D Dual Diagnosis Pathway Alcohol

TRIAGE

Initial triage is based on information from referrer, client and possibly third-party information. Assess for appropriateness of referral, degree of risk (e.g. self-harm, self-neglect), urgency and possibility of accompanying mental health problems accompanying alcohol misuse. If problem is solely alcohol use refer to Local Drug and Alcohol Team.

ASSESSMENT

Review of problems reported by patient: try to assess at a time of day when they are not intoxicated. If not possible, do not exclude this high-risk group without making an attempt to assess.
 Full psychiatric history (including alcohol-related brain damage and self-harm)
 Alcohol history and use of other substances
 Full medical history (including physical effects of alcohol misuse)
 Assessment of risk history (including alcohol related risk e.g. self-harm, intoxication, withdrawal, accidental injury and seizures, Wernicke's)
 Examination of mental state
 Evaluation of current risk & risk management plan (e.g. degree of alcohol misuse, alcohol dependence, capacity, safeguarding, self-neglect, falls, poor food and fluid intake, accommodation condition, ideas/plans of self-harm or suicide)
 Outcome measures
 Alcohol Use Disorders Identification Test (AUDIT)
 SMMSE
 Investigations may include the following: Blood tests e.g. Full Blood Count, Urea and Electrolytes, Liver Function Tests (including Gamma GT), Electrocardiogram, Neuropsychological: ACE-III

TREATMENT PLANNING BASED ON AUDIT SCORE

Lower risk	Increasing risk	Higher risk	Possible dependence
0–6	7–15	16–19	20+
<p>Seek permission from person to discuss alcohol use and provide information. Document person's response. If agrees, offer health information and promote continued drinking within 'lower risk' levels. If working towards abstinence, encourage continued reduction and plan with person based on what has previously worked. Generate ideas to manage cravings and social situations. Offer alcohol information leaflet on units of alcohol. Update risk assessment and care plan if appropriate. Ensure the person is included in care planning.</p>	<p>Seek permission from person to discuss alcohol use and provide information. Document person's response. Care plan sessions to discuss reduction of drinking and associated risk-taking behaviour. Aim to focus on enhancing motivation to make changes to alcohol use. Update and regularly review risk assessment. Encourage person to keep a drink diary. Provide information on interactions between medication and alcohol and impact on physical health. Ensure care plan and crisis plan reflect alcohol use and associated care planning and risk management strategies. Advice – make small gradual reductions in alcohol use. Discuss with team dual diagnosis lead to explore tools and techniques to achieve this. If person is willing to engage in local alcohol services provide information. Provide information about 12-step programmes such as Alcoholics Anonymous (AA) and other self-help/mutual aid groups e.g. SMART recovery. Family and carer support. Discuss accessing AA, SMART Family and Friends. Complete engagement and support plan.</p>	<p>Seek permission from person to discuss alcohol use and provide information. Document person's response. Care plan sessions to help discuss reduction of drinking and associated risk taking behaviour. Update and regularly review risk assessment Ensure care plan and crisis plan reflect alcohol use and associated care planning and risk management strategies. Encourage the person to keep a drink diary. Detoxification – Facilitate referral to local alcohol service for detox and aftercare. Discuss referral in MDT. Detoxification on MHOA&D ward – If physically dependent, refer to Trust guidelines for detox regime. Nursing staff monitor using CIWA-Ar (withdrawal assessment scale). Check for signs of Wernicke's Encephalopathy. Offer pabrinex. If after detox the person wants to remain abstinent offer relapse prevention medication. For higher risk alcohol use and dependence if the person is unwilling to engage with alcohol services. Offer harm minimisation information, e.g. don't stop drinking suddenly. Seek specialist advice from Dual Diagnosis Nurse consultant. Provide information on support systems in community (AA, SMART recovery). Family and carer support – discuss accessing AA, SMART Family and Friends. Complete engagement and support plan.</p>	

Good Practice – Example 1

Currently, 75% of primary care records and all community health and mental health care records provided by Solent NHS Trust recorded on one electronic system.

Access to a shared clinical record means that people can be triaged by phone by a professional who has full access to the patient's notes, regardless of where they are registered.

In the future, it will be able to offer electronic referral and discharge processes on the same system. And it will make it quicker and easier for practices to refer, and make sure that discharge notes are fed back directly into a person's own medical records

Good Practice – Example 2

Cambridgeshire and Peterborough Clinical Commissioning Group has established a 'Joint Emergency Team' (JET) and 'neighbourhood teams' to support older people.

JET provides a rapid response for people over 65 who need support to access urgent care but do not need to go to hospital. The neighbourhood teams have brought together GP services, acute care and mental health services so that people using adult community services, and patients over 65 years old, have their care delivered by teams working together, rather than being seen separately by each service.

South Gloucestershire opioid analgesics dependency pilot project

The South Gloucestershire opioid analgesics dependency pilot project is the first service in the UK that focuses specifically on patients with an opiate painkiller problematic use pattern. A dedicated care worker works with patients and GPs to treat patients' addictions and help GPs reduce prescription of opiate painkillers. The pilot was launched in two local GP practices in 2016 and is currently running. The results of the pilot are awaiting evaluation.

The Geriatric Addictions Programme

The Geriatric Addiction Program (GAP) was developed in the United States as a response to increasing OPDP referrals and specifically to meet the needs of older adults experiencing a multitude of problems related to addictions and their comorbidities (D'Agostino et al, 2006). The majority of clients were referred to GAP for alcohol problems, but approximately 15% had comorbid drug problems (D'Agostino et al, 2006). The community-based intervention programme focuses on providing in-home geriatric substance use intervention, assessment and linkage services for older adults. The evidence suggests that, after more than a decade since GAP's inception and despite positive outcomes, there is a dearth of similar programmes.

The Men's Shed Programme

'Men's shed' programmes have been developed in Australia, Canada, Ireland and the United Kingdom (as 'Men in Sheds'), which have allowed shed spaces to be established in communities. Men are encouraged to develop a 'sense of identity, self-esteem and value' by engaging in the programmes (Milligan et al, 2013, 1). Older men can come together, socialise and learn new skills in the safe 'shed' space. There are benefits in terms of tackling loneliness and isolation in developing shed programmes as a gendered intervention for male OPDP (Ballinger et al, 2009).