NHS Health Scotland

Drugs-related deaths rapid evidence review: Keeping people safe

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Introduction

In July 2017 the Scottish Government and the Partnership for Action on Drugs in Scotland (PADS) convened a conference entitled *Drug Policy through a Health Lens*, to respond to rising drug-related deaths in Scotland. NHS Health Scotland undertook a rapid evidence review to inform the discussions taking place at the conference. The initial findings of the review were presented at the conference. This report presents the evidence base which underpinned that conference presentation.

There is a clear trend of increasing deaths among older people with a drug problem in Scotland. This cohort are categorised as people aged over 35 who experience health and social harms related to his/her own use of drugs. As this cohort is likely to grow in size over the next five years in Scotland, the scope of this rapid evidence review was to respond to the specific risks and needs identified for this group of people. This report provides a synthesis of findings from the evidence based on the critical appraisal of systematic reviews and grey literature reports.

Key points

- There is review-level evidence that the health of individuals with opioid dependence is safeguarded while in substitution treatment.
- It is important to consider which medications work for whom.
- The first 4 weeks of treatment and the first 4 weeks after leaving treatment are critical intervention points to reduce mortality risk.
- One size does not fit all. Treatment approaches and services need to be tailored to the individual to support them to stay in treatment.
- Psychosocial interventions in conjunction with medication-assisted treatment have been shown to contribute to improving outcomes for people with opioid dependence.

- Complex psychological and social barriers must be addressed to support individuals to access services.
- A holistic approach, designed and tailored to the health and social needs of individuals, will improve the effectiveness of interventions, help increase motivation and prevent drop out.
- Treatment and harm-reduction services are effective in reducing the transmission of blood-borne viruses.
- Take-home naloxone programmes have been demonstrated to increase the odds of recovery from overdose and improve knowledge of overdose recognition and management in the community.

Methods

The question for this rapid evidence review was:

> ‘In the context of rising drug-related deaths, and an increasingly vulnerable ageing cohort of people with drug problems, what does the evidence tell us about keeping people safe?’

‘People’ being those with long-term opioid dependency, experiencing the greatest harms due to complex health and social needs that result in multi-morbidities.

Seven databases were searched to identify published systematic reviews. Further articles were identified from the reference list of the ACMD (2016) report. Articles which had been published between 2015 and 2017 were included. Title and abstracts were screened against inclusion and exclusion criteria, with further exclusions at full text screening – initial findings of these most recent reviews (eight articles) are presented below. Quality was

appraised using the CASP[1] Systematic Review Checklist, and data extracted to inform summary statements on evidence of effectiveness [Appendix 1].

A limited search of UK grey literature was also conducted to identify key reports of relevance using Google Advanced and key organisations – initial findings from four UK reports published since 2015 are presented below. For consistency, reports were only included in the review if they presented evidence of effectiveness. Reports were appraised using AACODS checklist[2], and for consistency only findings that cited high-level evidence (reviews of reviews and systematic reviews) were extracted and drafted into supporting statements [Appendix 2]. No further quality appraisal was completed on these sources.

Findings

Below are findings synthesised from the evidence. The findings from this rapid evidence review are divided into three categories for ease of reference:

- Seek – engagement and access to services
- Keep – characteristics of treatment and support
- Treat – benefits of treatment.

Findings are mapped against Evidence Statements and Supporting Statements developed from this rapid review of the evidence. Evidence Statements (ES) refer to evidence of effectiveness from systematic reviews; Supporting Statements (SS) refer to knowledge and learning from the grey literature. The detail of these summary statements is provided in Appendices 1 and 2.

[1] The Critical Appraisal Skills Programme offers training, workshops and tools – to help read and check health research for trustworthiness, results and relevance. www.casp-uk.net/casp-tools-checklists

[2] The AACODS checklist (Authority, Accuracy, Coverage, Objectivity, Date, Significance) was developed as an evaluation and Critical Appraisal Tool specifically for use with grey literature sources. https://dspace.flinders.edu.au/jspui/bitstream/2328/3326/4/AACODS_Checklist.pdf

1. Seek – engagement and access to services

Barriers to seeking support and accessing services were highlighted in relation to stigma, loneliness and isolation among older people with drug problems, preventing individuals from addressing the harms they experience. The literature emphasises a need to specifically tailor or adapt, as well as design services to meet the distinct medical, psychological and social needs of this group and recognise the role of the therapeutic relationship in this regard. [Atkinson 2016, SS 14 & 15]

Complex physical and mental health issues resulting from long-term drug use were highlighted in the literature on service responses for older high-risk drug users. Overall poorer levels of health were reported, with greater risks of disease progression and chronic problems in this vulnerable group. Together with personal, social and financial circumstances restricting opportunities for change, as well as intense feelings of shame and negative perceptions of services, these unmet needs demonstrate greater holistic support requirements for interventions to be effective and to increase motivation and prevent drop out. [Atkinson 2016, SS 16 &17]

Evidence from both the systematic reviews and grey literature found that treatment and harm-reduction services (needle and syringe programmes, supervised drug consumption clinics and methadone maintenance) prevent blood-borne virus infection. They reduce risk behaviours and have broader public health benefits, such as addressing the multi-morbidity risks experienced by people who inject drugs. Reducing the harms of polydrug use is also highlighted in the grey literature. [Karki et al 2015, ES 4; Fernandes et al 2017, ES 11; ACMD 2016, SS 3; SDF 2016, SS 7]

There is robust evidence that take-home naloxone programmes reduce heroin-related overdose fatalities. Education and training of users, families and peers is an effective and safe proactive approach to equip witnesses to overdose events with the ability to intervene and save a life. A focus on prison through-care to reduce drug-related deaths on liberation is also offered in

good practice indicators within the grey literature. [Giglio et al 2015, ES 12; McDonald & Strang 2016, ES13; ACMD 2016, SS 3; SDF 2016, SS 6]

2. Keep – characteristics of treatment and support

The first 4 weeks of treatment and the first 4 weeks after leaving treatment are critical intervention points to support people in substitution treatment and prevent drug-related deaths. There is review-level evidence of elevated mortality risks during these periods. [Sordo et al 2017, ES 2]

There is emerging evidence that in order to keep people in treatment and see treatment gains, it is important to assess which treatment approaches (methadone, buprenorphine, heroin-assisted) will benefit whom. The grey literature also suggests that just like any other medication, not everyone will respond effectively to every drug, so choice in treatment options is important, with care plans reviewed and updated according to needs. Strategies and processes to engage and maintain continuity of care for individuals at high risk are also identified against good practice indicators. [Timko et al 2016, ES 6; ACMD 2016, SS 2; SDF 2016, SS 5; ACMD 2015 SS 9 &10]

Psychosocial interventions (for example contingency management[3], cognitive behaviour therapy (CBT), motivational interviewing, counselling, mutual aid and telephone/web-based support) in conjunction with medication-assisted treatment have been demonstrated to contribute to improving outcomes. This is in line with current policy objectives set out in the national strategy, *The Road to Recovery*[4], for services to provide holistic, person-centred support to individuals. However, with no specific effective programme components yet established from the evidence, exploratory evaluative work could contribute to

[3] NICE (2007) *Drug misuse in over 16s: psychosocial interventions* (CG51) defines contingency management as a set of techniques that focus on changing specified behaviours. In drug misuse, it involves offering incentives for positive behaviours such as abstinence or a reduction in illicit drug use, and participation in health-promoting interventions.
[4] The Scottish Government. *The Road to Recovery: a new approach to tackling Scotland's drug problem*. Edinburgh: Scottish Government; 2008.

filling this knowledge gap. [Dugosh et al 2016, ES 8, 9 & 10; ACMD 2015, SS 11 & 12]

There is emerging evidence that contingency management can be a support mechanism to improve treatment outcomes. [Timko et al 2016, ES 7; Dugosh et al 2016, ES 8; ACMD 2016, SS 1; ACMD 2015, SS 11]

The literature also identified that for older high-risk drug users, having age-appropriate support and staff can achieve favourable outcomes. Age-specific holistic services with refined care pathways and pragmatic treatment plans are suggested in order to provide ongoing support to address the complex physical and mental health issues experienced by older people with a drug problem. Workforce development across disciplines was also identified to ensure appropriate and accurate diagnosis of health issues in this vulnerable group. [ACMD 2016, SS 1; ACMD 2015, SS 10; Atkinson 2016, SS 13,15 & 17]

There is emerging but limited evidence of sex differences in outcomes and gender-related needs. Therefore understanding the essentials of treatment programme characteristics for different groups is suggested. [Bawor et al 2015, ES 5; Atkinson 2016, SS 16]

3. Treat – benefits of treatment

There is review-level evidence that the health of individuals with opioid dependence is safeguarded while in substitution treatment. Optimum dose is critical and retention in treatment essential to achieving positive outcomes. [Sordo et al 2017, ES 1; ACMD 2016, SS 2; SDF 2016, SS 4; ACMD 2015, SS 8]

Evidence from both the systematic reviews and grey literature suggests that it is important to consider which medications work for whom, particularly for vulnerable older users. Additionally, in order to provide support to entrenched heroin users, emerging evidence suggests that heroin-assisted approaches may be appropriate where previous treatment has not been successful. [Timko et al 2016, ES 6; ACMD 2016, SS 1 & 2]

References

Systematic reviews

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Grey literature

Advisory Council on the Misuse of Drugs. Reducing opioid-related deaths in the UK. London: ACMD; 2016.

Advisory Council on the Misuse of Drugs Recovery Committee. How can opioid substitution therapy (and drug treatment and recovery systems) be optimised to maximise recovery outcomes for service users? London: ACMD; 2015.

Atkinson C. Service responses for older high-risk drug users: a literature review. University of Glasgow: Scottish Centre for Crime & Justice Research; 2016.

Scottish Drugs Forum. Staying Alive in Scotland: Strategies to combat drug-related deaths. Scotland: SDF, Hepatitis Scotland, Scottish Government; 2016.

Appendix 1

Statements on evidence of effectiveness from systematic reviews

Theme: treatment benefit

Mortality risk

There is high-quality review-level evidence that substitution treatment reduces the mortality risk of people with opioid dependence (Sordo et al 2017). Time spent in treatment is protective – the largest number of available cohort studies included in the review related to methadone treatment participants and this body of evidence demonstrated a reduced mortality rate of less than a third compared to those out of treatment, with the greatest difference in the number of deaths from overdose. Preliminary evidence from the more limited numbers of buprenorphine cohort studies also suggests a reduced mortality rate for those in treatment. [ES 1]

Within treatment modalities: all-cause mortality risk during methadone treatment were assessed as highest in the first 4 weeks of treatment initiation and in the first 4 weeks after leaving treatment. The authors suggest focused efforts on these periods to prevent drug-related deaths. Mortality rates were similarly increased in the first 4 weeks of ending buprenorphine treatment, however mortality rates during treatment were no different in the first 4 weeks to the remaining time in buprenorphine treatment. [ES 2]

Between treatment modalities: taking methadone demonstrated a greater reduction in mortality between periods in and out of treatment than those within buprenorphine. However between the two treatments, mortality was lower with buprenorphine in both periods, in and out of treatment. The authors indicate these findings remain tentative until further studies assessing patient characteristics in varied treatment settings and contexts are undertaken.

These were not sufficiently reported in the included studies to allow this analysis. [ES 3]

HIV risk behaviours

There is preliminary evidence from one systematic review on the impact of methadone maintenance treatment (MMT) on HIV-related risk behaviours (Karki et al 2015).

While it was not possible to assess the quality of the evidence as critical appraisal of the studies was not provided, overall findings from 12 studies with varying sample sizes and design suggest an association between MMT enrolment, participation and duration and self-reported reduced drug- and sex-related HIV risk behaviours in high-risk people who inject drugs. However, no studies looked at self-efficacy skills related to HIV risk-reduction practices. The average age of participants in included studies was 35.4 years. [ES 4]

Theme: characteristics of treatment approaches

Sex differences in methadone treatment outcomes

A robust systematic review and meta-analysis by Bawor et al (2015) provides limited low- to moderate-quality evidence of sex differences in methadone treatment outcomes. The systematic review included 20 studies of methadone maintenance treatment for opioid use disorder in men and women – the two randomised control trials (RCTs) included were assessed to be low risk of bias, while the remainder (18 observational studies) were assessed as having a moderate to high risk of bias.

The review focused on sex differences in outcomes related to substance use, treatment and social functioning. Compared with men, women were less likely to use alcohol, report arrests and be employed during treatment, but more likely to use amphetamines. However, these results must be interpreted with caution as this study reported a number of limitations – in particular individual

quantified evidence of effect was based on limited numbers of studies (with the exception of one outcome, differences were from three studies or fewer), and the included studies were predominantly based in the United States. The authors report causality between treatment initiation and completion cannot be inferred from the data and also infer that the results are deemed to be consistent with traditional sex-role expectations rather than specific to methadone treatment patients, so findings have limited generalisability. [ES 5]

Retention rates

There is emerging evidence from one systematic review to suggest that taking different approaches to medication-assisted treatment (MAT) can improve retention rates, although rates varied across a range of follow-up time points (Timko et al, 2016). The review included 55 studies of varying design. As no critical appraisal was provided, which limits the validity and reliability of conclusions, this summary focuses only on results from RCTs reporting significant findings (19 of 38 studies, with limited numbers in each condition). It is worth noting that 20 RCTs reported no difference in retention rates across different conditions.

In terms of approaches that are medication focused, evidence from four studies suggested methadone was more effective than buprenorphine/naloxone at four and six months follow-up, while naltrexone and buprenorphine were both associated with better retention compared with placebo or no medication at 3 and 6 months (four studies, one included counselling with MAT). One study compared integrated buprenorphine and HIV clinic care to referral to opioid treatment programmes for HIV-positive individuals, and retention rates were higher at 12 months. Longer MAT with guanfacine (used for ADHD and hypertension) did not improve retention rates (one study) but 4-week taper of buprenorphine prior to naltrexone did improve retention compared to briefer tapering (one study). In treatment-refractory patients (three studies, 12-month follow-up) and those in treatment but still injecting (one study, 6-month follow-up), retention rates were improved when

participants were offered heroin-assisted treatment (injectable heroin or methadone rather than oral administration). [ES 6]

There is tentative evidence from a limited number of studies that behavioural focused therapies such as facilitated linkage (one study) and contingency management increase retention rates (three studies). [ES 7]

Psychosocial interventions

There was support for the use of psychosocial interventions in conjunction with medication-assisted treatment (MAT) in improving outcomes in people with opioid addiction from one moderate-quality systematic review by Dugosh et al (2016). Three previous systematic reviews and 27 controlled quasi-experimental studies were included. There was diversity in outcomes measured across the studies, and a range of psychosocial interventions were evaluated (for example contingency management, CBT, motivational interviewing, counselling, and telephone/web-based support).

The results of the previous systematic reviews were inconsistent. One systematic review reported sufficient evidence to support contingency management and CBT effectiveness in MMT and some evidence in buprenorphine and naltrexone treatment (with additional effectiveness of family therapy in the latter), although specific effective programme components were not established. A second review looking at agonist maintenance treatment, however, concluded that psychosocial support did not add additional benefits (although Dugosh et al report this was contrary to the earlier version of this review, which did show improvements in outcomes). The third systematic review found psychosocial interventions to be effective in improving detoxification treatment outcomes. [ES 8]

The largest body of evidence (seven interventions in 14 studies) reported evidence that treatment with MMT delivered in conjunction with a psychosocial intervention is beneficial, with nine studies reporting significant difference in improving attendance and reducing drug use. Evidence of

effectiveness with buprenorphine and psychosocial interventions was more limited (six interventions in eight studies); limited preliminary evidence of effect with oral naltrexone (three studies) and insufficient evidence from injectable naltrexone (two studies). Outcomes most frequently reported to improve, across studies and treatment modalities, were attendance (16 reports) and reduced drug use (18 reports). [ES 9]

Although the evidence is promising with positive outcomes frequently reported with statistical significance, quality assessment of the included studies is not provided and the majority of controls across conditions were reported by authors to be variable and not MAT-only, suggesting that results may have been affected.

Given the variation in the characteristics of the studies (for example setting, outcome, interventions) and that most interventions were evaluated in only one study, no specific optimum psychosocial intervention or effective characteristic can be advocated from the evidence. [ES 10]

Theme: harm reduction

Needle and syringe programmes

Fernandes et al (2017) provides a robust body of evidence on the effectiveness of community-based needle and syringe programmes (NSP) for injecting drug users in reducing associated risks. This well-conducted review assessed 13 systematic reviews with outcomes related to blood-borne infections such as HIV, hepatitis C virus (HCV) and injecting risk behaviours. Although included studies across these reviews were assessed as being of low to moderate quality, this review of reviews concluded overall that NSPs were effective in reducing HIV transmission and injecting risk behaviours, and may reduce HCV infection, but evidence was inconsistent.

The review also reported that full harm-reduction interventions provided at structural level and in multi-component programmes, as well as a high level of coverage, were more beneficial than individual NSPs. [ES 11]

Take-home naloxone programmes

Robust evidence of effectiveness to support take-home naloxone programmes reducing heroin-related fatalities was provided by two systematic reviews (Giglio et al, 2015; McDonald and Strang, 2016). In a methodologically robust systematic review and meta-analysis, Giglio et al summarised the effectiveness of bystander naloxone administration and overdose education programmes from 12 high-quality studies. Although there was heterogeneity in the results due to small samples and variance in overdose events across studies, the findings conclude that lay naloxone administration and overdose education programmes are associated with increased odds of recovery and improved knowledge of overdose recognition and management in non-clinical settings for heroin users, their families and peers. [ES 12]

McDonald and Strang looked at the efficacy of take-home naloxone programmes in terms of its safety and impact on overdose-related mortality. This well-conducted systematic review evaluated evidence from 22 non-randomised studies of moderate to high quality against nine specific public health criteria for causation and five implementation and feasibility criteria to demonstrate improved survival rates among programme participants and reduced heroin-related overdose mortality rates in the community, and a satisfactory safety profile in terms of a low rate of adverse events. However, the study findings cannot inform the specific components of effective programmes – for example which model of overdose education and take-home naloxone distribution is superior. [ES 13]

Appendix 2

Supporting statements of evidence from the grey literature

The following supporting statements provide evidence drawn from the grey literature. For consistency of methodology in this rapid evidence review, the data extracted from this body of work are limited to only include evidence informed by high-level sources. The evidence provided by these sources cannot be assessed for effectiveness as no quality appraisal is provided and findings should be interpreted with caution.

Theme: Drug-related deaths

Reducing opioid-related deaths

The ACMD (2016) report *Reducing opioid-related deaths in the UK* provides a series of nine recommendations based on analysis of published research, research undertaken by members of the working group, and consultation with stakeholders. The ACMD has a statutory duty under the Misuse of Drugs Act 1971 to advise Ministers on measures that may be taken to reduce the harms associated with illicit drugs. The interpretation of evidence in this report has this stated aim and is assessed as balanced analysis from recognised experts. Recommendations are representative of work in the field, consistent with current knowledge, and offer credible, contextual analysis specific to the UK. However no critical appraisal is provided on the sources informing the report. Six of the nine recommendations specifically reference high-level sources. Learning from these is outlined below.

> ‘The ACMD recommends that central and local governments implement strategies to protect the current levels of investment in evidence-based drug treatment which can enable people to achieve a range of recovery outcomes, including sustained abstinence from opioids.’

In relation to support for abstinence and recovery from dependence informing this recommendation the ACMD fully supports this aim but expresses caution

in being realistic as to the complex health and social care needs of the ageing cohort of heroin users, with poor recovery capital. Evidence of different needs is outlined with recovery attained for some through outpatient treatment alone, with others benefiting from residential treatment to achieve their goals. It is noted that evidence on residential services remains under-developed and high rates of dropout have been found. Contingency management is cited as effective in supporting abstinence, yet the ACMD infer the use of rewards to progress treatment success in this way is rarely used in the UK. The effectiveness of the use of naltrexone to support patients is stated to be so far weak and mixed, although implants may provide better effects for some patients. [SS 1]

> ‘The ACMD recommends that central and local governments continue to invest in high-quality OST of optimal dosage and duration, delivered together with interventions to help people achieve wider recovery outcomes including health and wellbeing, in order to continue to reduce rates of drug-related death (DRD); drug treatment services should follow national clinical guidelines on OST and provide tailored treatment for individuals for as long as required; central government funding should be provided to support heroin-assisted treatment for patients for whom other forms of OST have not been effective.’

On opioid substitution therapy (OST) that informs this recommendation, the ACMD recalls the effectiveness of treatment in improving health and social outcomes of patients retained in treatment. In discussing the safety of buprenorphine compared to methadone for some patients, the ACMD offsets this with evidence suggesting it is less effective in retaining patients in treatment. The ACMD refers readers to the forthcoming revised clinical guidance that considers the issue of which type of pharmacotherapy to use in individual cases. High-level evidence of reducing the use of street heroin and related negative outcomes is given on heroin-assisted treatment (HAT) as a specialist service provided to people for whom other opioid substitutes have not been effective, but with a higher risk of adverse events noted compared to other forms of OST. [SS 2]

> ‘The ACMD recommends that naloxone is made available routinely, cheaply and easily to people who use opioids, and to their families and friends; and consideration is given – by the governments of each UK country and by local commissioners of drug treatment services – to the potential to reduce DRDs and other harms through the provision of medically supervised drug consumption clinics in localities with a high concentration of injecting drug use.’

On prevention and treatment of overdose, while considering route transition intervention opportunities for treatment services, high-level evidence of the role of OST in reducing drug injections is noted. On naloxone to reverse opioid overdoses, strong evidence of effectiveness in preventing DRDs is recognised from multiple sources. On medically supervised drug consumption clinics, high-level evidence that they reduce injecting risk behaviours and overdose fatalities is cited. As well as benefits in reducing blood-borne viruses, improving access to primary care and more intensive forms of drug treatment. [SS 3]

Strategies to combat drug-related deaths

The Scottish Drug Forum’s (2016) report *Staying Alive in Scotland* aims to stimulate actions to reduce high mortality rates among people with drug problems by encouraging a wider more holistic view of drug-related deaths. Strategies to combat drug-related deaths are provided as key findings and accompanied by good practice indicators as a self-assessment improvement tool for ADPs. The findings and indicators were informed by scoping work, expert consultation including with service users and a narrative review of the evidence. Six of the 15 key findings explicitly reference high-level evidence sources and these findings are outlined below. These findings are consistent with current understanding. This report was published by a reputable authority in the field and was assessed to add context and meaningful practical actions to tackle DRDs, representing relevant knowledge and needs of the sector.

Findings underscore opiate replacement therapy (ORT) as an effective treatment for opioid use, and the benefits of being *in* treatment as a protective factor in preventing overdose and non-overdose drug-related deaths. Retention in services is further identified as a protective factor against drug-related deaths. Release from prison is identified as a risk factor for drug-related death. The importance of understanding polydrug use and the role of benzodiazepines in particular to reduce drug-related harms is also highlighted. The importance of staff attitudes on users' experience of services, particularly engagement is also emphasised. [SS 4]

Although not peer reviewed with details of validation processes, the *Staying Alive in Scotland* report offers expert opinion on good practice indicators. These indicators cover a range of factors against each of the above findings in order to support strategies in combating drug-related deaths and provide services with improvement measures as part of a self-assessment tool.

Good practice indicators related to ORT treatment and retention as a protective factor include:

- triage and risk assessment approaches
- rapid titration protocols
- treatment initiation within 48 hours of assessment for high-risk individuals
- reducing conditionality and no exclusion policy
- a human-rights based approach in the duty of care offered by staff
- active involvement of service users in prescribing decisions and treatment choices, with a range of options offered when appropriate
- regular reviews and availability of information on benefits and side effects
- re-engagement processes and procedures both for those moving through treatment if needed and for those who have disengaged
- assertive outreach principles embedded in practice
- referral pathways between GPs and addiction services

- fast track assessment and access to ORT for those experiencing non-fatal overdoses
- risk management for individuals with a history of limited engagement and solutions to encourage engagement
- clear processes for continuation of ORT following prison and following hospital discharge.

Broader indicators include regularly assessing access by high-risk groups; easily accessible child protection policies and practicalities of their operation explained to parents; addressing pharmacy provision; GP and addiction staff workforce development; psychosocial supports and consistency in assessment to prevent repeated questioning of individuals around trauma and distress. [SS 5]

Good practice indicators on prison through-care support to reduce the risk of drug-related death on release include:

- staff training should include harm reduction practices, risks of overdose and how to deal with an opiate overdose emergency
- prisoner assessment prior to liberation regarding drug-related risk behaviours, pre-release education on overdose risks and prevention is available
- liaison with addiction service of high-risk individuals prison liberation dates and provision in place for continuation/initiation of ORT in the community
- prisoners with a history of opiate use are offered a supply of naloxone on liberation; families of prisoners are offered overdose awareness and naloxone training. [SS 6]

Good practice indicators related to prescription drugs and non-opiate illicit substances focus on drug services staff being able to offer information on the risks of different groups of drugs, including the risks of polydrug use, and services providing advice on reducing these risks. As well as A&E staff

screening for stimulants when a person presents with heart problems, strokes and seizures. [SS 7]

Theme: characteristics of treatment

Drug treatment and recovery outcomes

The ACMD Recovery Committee (2015) report *How can opioid substitution therapy (and drug treatment and recovery systems) be optimised to maximise recovery outcomes for service users?* considered evidence in response to an inter-ministerial group request. The report is part two of the process and seeks to determine how treatment and recovery outcomes can be maximised for service users. The first part's previous conclusions were reported in *Time-limiting opioid substitution therapy (OST)* (2014) and found strong evidence suggesting that time-limiting OST would result in the majority relapsing into heroin use; may have significant unintended consequences (including increases in drug driven crime, heroin overdose deaths and the spread of BBVs) and may not be able to be implemented due to medico-legal challenges.

This report was informed by further literature reviews and evidence from multiple stakeholders (public health, academic, treatment providers and commissioners, as well as 'experts by experience' through a national survey of service user representatives in England). The report strengthens the current position on support requirements and provides context in seeking to optimise outcomes in the English treatment system.

The report was assessed as valuable given the ACMD's statutory duty to advise on harm reduction and offer unbiased analysis of evidence. This report provides interpretation of some highly processed evidence relevant to critical factors associated with successful OST treatment outcomes (specifically dose, medication options, and key worker approaches) and on psychosocial intervention needs. These points are outlined below against the ACMD's

respective conclusions. No appraisal is however provided to assess the robustness of sources.

a) OST: evidence-based practice

> ‘The ACMD wishes to state that service users should receive opioid substitution medication doses in line with UK clinical guidelines, sub-optimal opioid prescribing is unlikely to help service users stop illicit heroin use and is associated with poorer outcomes. The ACMD is concerned that there also needs to be clear community and in-patient detoxification regimes and pathways, including psychosocial support, when the service users are ready and able to come off OST.’

There is high-level evidence that receiving an optimal dose of the substitute medication is critical to outcomes. With high doses of methadone and buprenorphine demonstrated to reduce opiate use, and reduce risk behaviours; and low (sub-optimal) dose associated with more criminality, more use on top and more DRDs. [SS 8]

> ‘ACMD wishes to restate that choice of OST medication is therefore required in every service to optimise outcomes in OST.’

The ACMD states that as with any other medication not everyone will respond effectively to every OST drug. There is evidence that methadone and buprenorphine are equally effective, with variable dose methadone attaining higher rates of patient retention than variable dose buprenorphine, and some evidence that slow-release oral morphine is more effective for some patients. [SS 9]

> ‘ACMD wishes to reiterate that OST staff should ensure every service user has a recovery care plan with goals that has been co-produced with the service user. Service users should receive regular recovery reviews, with updated plans modified to meet changing needs.’

Guidelines recommend that individuals in OST receive 'key working' where a therapeutic alliance can be established with individualised goal-oriented care plans. [SS 10]

b) Psychosocial interventions

> 'ACMD wishes to reiterate that evidence-based psychosocial interventions should be provided systematically to service users in OST, based on need. It is concerned about the lack of implementation techniques with the 'best evidence' (contingency management including drug testing, BCT and family therapy) and recommends this should be rectified. The ACMD welcomes the spread of mutual aid and recommends facilitated access and more access for those in medication-assisted recovery. It also notes the important role of CBT to treat mental health problems in this group. Together with cessation of illicit heroin use (ideally within 6 months), a critical focus in OST appears to require helping people to build positive relationship and establish 'meaningful daily activity' and reintegrate into the community.'

There is strong evidence for the use of contingency management in reducing cocaine or crack and heroin use among those in OST. It is reported that random drug tests with immediate (contingent) rewards are required to achieve the results demonstrated by the evidence. There is research evidence that family therapy and behavioural couple's therapy (BCT) can improve outcomes for heroin users. The ACMD reflect that there is little evidence that these approaches (contingency management, behaviour couples therapy and family therapy) have been implemented in the UK despite being advised in NICE[5] [6] and UK clinical guidelines. [SS 11]

There is high-level evidence that involvement in mutual aid is associated with

[5] NICE. *Drug misuse in over 16s: psychosocial interventions* (CG51). London: NICE; 2007.
[6] The ACMD note that NICE recommend CBT is not used for treatment of addiction within OST but for the treatment of co-morbid depression or anxiety.

higher chance of achieving abstinence and other recovery outcomes. The ACMD is encouraged by the widespread growth of these approaches in England but reflects caution on the limited access for those in OST, which may hinder improvement of outcomes. [SS 12]

Older people with drug problems

A literature review *Service responses for older high-risk drug users* (Atkinson 2016) aimed to identify key literature, distil the main characteristics and needs of this population, and provide an account of service responses to inform planning and policy in Scotland. Coherent themes of the issues are presented. However, much of the literature does not focus on the effectiveness of service responses but provides important contextual information on the experience of older drug users that can inform action. This review was assessed to add context and strengthen current emerging understandings of the complex needs of this vulnerable group. However strength of findings are unknown as no clear quality appraisal process is provided and so should be interpreted cautiously.

Key themes on the characteristics of older users highlight their distinct trajectories in their substance use, and that a diverse range of experiences and pathways exist. Treatment outcomes were reported as favourable in this group with effective age-appropriate support (three studies). A distinction is drawn between early onset and late onset of problem drug use with important implications for treatment and recovery approaches. Insights of late onset older users were inconsistent with reports of better prognosis (one study), while significantly more medical problems and worse general health than younger users also reported (one study). Research on early onset users from three studies reported individually on efficacy of managing drug use and knowledge of health implications, childhood behavioural problems and chronic life course of substance use among treatment seekers. [SS 13]

An important issue faced by older high-risk drug users highlighted in the literature was social isolation, exclusion, shame and stigma. Across a range of

studies the review reported feelings of moral failing, fear of judgement within services and multiple stigmas related to age and drug use operating as barriers to seeking treatment, preventing individuals from addressing the harms they experience and the importance of addressing these factors in order to overcome mental health issues. An emphasis on recognising social isolation in the provision of care for older users and the importance of the therapeutic relationship in this regard is highlighted. A need to adapt and tailor services for this ageing population of people who use drugs included models of specialised residential and nursing care home. [SS 14]

Specifically designing or adapting services and ensuring they are delivered to meet the needs of this group was a further theme reported from the literature. Enhanced multi-disciplinary approaches are required to meet medical, psychological and social needs of older high-risk drug users and that staff are trained to understand the needs and anxieties of this group. [SS 15]

Studies frequently reported physical and mental health co-morbidities with poorer levels of health overall and the associated greater risks of disease progression in older users. Overall, studies indicated greater levels of unmet need requiring wrap-around interventions and the importance of adequate support in addressing mental health issues. One study highlighted the importance of good mental health in preventing the risk of relapse and one study of gender differences among an ageing cohort of people with heroin dependence reported that at a younger age women report poorer health status and more chronic physical and mental health problems, suggesting gender-specific treatment and care needs. In studies on treatment outcomes, CBT, self-management approaches and physical activity programmes were discussed with potential promising improvements reported. However, barriers to participation remain a consideration. This further highlights the need to design services tailored to the needs of this older group in order to attain positive results. [SS 16].

The complex needs and barriers particular to this group was a related theme presented in the literature review. In this context, the physical and health

issues resulting from long-term drug use were highlighted alongside personal, social and financial circumstances influencing opportunities for change. These barriers together with intense feelings of shame and negative perceptions of services were highlighted to require greater holistic support for effective interventions to increase motivation and prevent drop out. Workforce development needs, across disciplines, were further considered to ensure appropriate and accurate diagnosis of health issues presented by this group. It was suggested from the literature that the particular problems faced by older high-risk drug users necessitates refining care pathways and offering pragmatic treatment plans addressing multiple issues and providing ongoing personal support. [SS 17]

The author concludes limited reliable and robust evidence of the effectiveness of service responses for older high-risk drug users, with identified gaps in relation to gender, ethnicity, and social class. (This literature review contributes to the work of the Expert Working Group on Older People with a Drug Problem[7].)

[7] The final report *Older People with drug problems in Scotland: Addressing the needs of an ageing population* was published by SDF in May 2017.

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