# **National Institute for Health and Care Excellence**

# 8-year surveillance (2016) – <u>Drug misuse in over 16s:</u> <u>psychosocial interventions</u> (2007) NICE guideline CG51

# Appendix A: Summary of new evidence from surveillance

# General considerations

# Recommendations derived from this heading

- 1.1.1.1 To enable people who misuse drugs to make informed decisions about their treatment and care, staff should explain options for abstinence-oriented, maintenance-oriented and harm-reduction interventions at the person's initial contact with services and at subsequent formal reviews.
- 1.1.1.2 Staff should discuss with people who misuse drugs whether to involve their families and carers in their assessment and treatment plans. However, staff should ensure that the service user's right to confidentiality is respected.
- 1.1.1.3 In order to reduce loss of contact when people who misuse drugs transfer between services, staff should ensure that there are clear and agreed plans to facilitate effective transfer.
- 1.1.1.4 All interventions for people who misuse drugs should be delivered by staff who are competent in delivering the intervention and who receive appropriate supervision.
- 1.1.1.5 People who misuse drugs should be given the same care, respect and privacy as any other person.
- 1.1.2.1 Staff should ask families and carers about, and discuss concerns regarding, the impact of drug misuse on themselves and other family members, including children. Staff should also:
- offer family members and carers an assessment of their personal, social and mental health needs
- provide verbal and written information and advice on the impact of drug misuse on service users, families and carers.
- 1.1.2.2 Where the needs of families and carers of people who misuse drugs have been identified, staff should:
- offer guided self-help, typically consisting of a single session with the provision of written material
- provide information about, and facilitate contact with, support groups, such as self-help groups specifically focused on addressing families' and carers' needs.
- 1.1.2.3 Where the families of people who misuse drugs have not benefited, or are not likely to benefit, from guided self-help and/or support groups and continue to have significant problems, staff should consider offering individual family meetings. These should:
- provide information and education about drug misuse
- help to identify sources of stress related to drug misuse
- explore and promote effective coping behaviours
- normally consist of at least five weekly sessions.

#### Surveillance decision

No new information was identified at any surveillance review.

# Identification and assessment of drug misuse

51 – 01 Are there sensitive and specific methods for the identification of people who misuse drugs in health and social care settings where drug misuse is prevalent or where presentations are associated with drug misuse as an aetiological factor?

#### Recommendations derived from this question

- 1.2.1.1 Staff in mental health and criminal justice settings (in which drug misuse is known to be prevalent) should ask service users routinely about recent legal and illicit drug use. The questions should include whether they have used drugs and, if so:
  - of what type and method of administration
  - · in what quantity
  - how frequently.
- 1.2.1.2 In settings such as primary care, general hospitals and emergency departments, staff should consider asking people about recent drug use if they present with symptoms that suggest the possibility of drug misuse, for example:
  - · acute chest pain in a young person
  - · acute psychosis
  - · mood and sleep disorders.
- 1.2.2.1 When making an assessment and developing and agreeing a care plan, staff should consider the service user's:
  - · medical, psychological, social and occupational needs
  - · history of drug use
  - experience of previous treatment, if any
  - · goals in relation to his or her drug use
  - treatment preferences.
- 1.2.2.2 Staff who are responsible for the delivery and monitoring of the agreed care plan should:
  - establish and sustain a respectful and supportive relationship with the service user
  - help the service user to identify situations or states when he or she is vulnerable to drug misuse and to explore alternative coping strategies
  - ensure that all service users have full access to a wide range of services
  - ensure that maintaining the service user's engagement with services remains a major focus of the care plan
  - maintain effective collaboration with other care providers.
- 1.2.2.3 Healthcare professionals should use biological testing (for example, of urine or oral fluid samples) as part of a comprehensive assessment of drug use, but they should not rely on it as the sole method of diagnosis and assessment.

# Surveillance decision

This review question should not be updated.

3-year surveillance summary

No relevant evidence was identified.

8-year surveillance summary

No relevant evidence was identified.

Topic expert feedback

One topic expert noted social factors, housing, future employment and training should be

taken into account when identifying people who misuse drugs. North East regions experience high levels of poverty and high death rates.

#### Impact statement

Topic experts noted about factors for identifying people who misuse drugs. However, no new

evidence was identified. Some of these issues are covered by NICE guideline PH4. Substance misuse interventions for vulnerable under 25s. NICE public health guidance 4 (2007).

New evidence is unlikely to change guideline recommendations.

# Brief interventions and self-help

51 – 02 For people who misuse drugs, are there effective psychosocial components of drug agencies (including needle and syringe exchange programmes, drop-in centres and outreach services) associated with reduced injection risk behaviours, reduced incidence of blood-borne diseases and engagement in treatment?

#### Recommendations derived from this question

- 1.3.1.1 During routine contacts and opportunistically (for example, at needle and syringe exchanges), staff should provide information and advice to all people who misuse drugs about reducing exposure to blood-borne viruses. This should include advice on reducing sexual and injection risk behaviours. Staff should consider offering testing for blood-borne viruses.
- 1.3.1.2 Group-based psychoeducational interventions that give information about reducing exposure to blood-borne viruses and/or about reducing sexual and injection risk behaviours for people who misuse drugs should not be routinely provided.
- 1.3.1.3 Opportunistic brief interventions focused on motivation should be offered to people in limited contact with drug services (for example, those attending a needle and syringe exchange or primary care settings) if concerns about drug misuse are identified by the service user or staff member. These interventions should:
  - normally consist of two sessions each lasting 10-45 minutes
  - explore ambivalence about drug use and possible treatment, with the aim of increasing motivation to change behaviour, and provide non-judgemental feedback.
- 1.3.1.4 Opportunistic brief interventions focused on motivation should be offered to people not in contact with drug services (for example, in primary or secondary care settings, occupational health or tertiary education) if concerns about drug misuse are identified by the person or staff member. These interventions should:
  - normally consist of two sessions each lasting 10-45 minutes
  - explore ambivalence about drug use and possible treatment, with the aim of increasing motivation to change behaviour, and provide non-judgemental feedback.
- 1.3.2.1 Staff should routinely provide people who misuse drugs with information about self-help groups. These groups should normally be based on 12-step principles; for example, Narcotics Anonymous and Cocaine Anonymous.
- 1.3.2.2 If a person who misuses drugs has expressed an interest in attending a 12-step self-help group, staff should consider facilitating the person's initial contact with the group, for example by making the appointment, arranging transport, accompanying him or her to the first session and dealing with any concerns.

# **Surveillance decision**

This review question should not be updated.

# Outpatient drug treatment programmes

#### 3-year surveillance summary

No relevant evidence was identified

# 8-year surveillance summary

One Cochrane systematic review <sup>1</sup> was identified on psychosocial compared to other interventions in pregnant women in outpatient illicit drug treatment programmes. The review included 14 studies (n=1298), including 9 studies (n=704) comparing contingency management (CM) to control and 5 studies (n=594) comparing motivational interviewing to control. The quality of the evidence was judged to be low to moderate. There were no differences for pre-term birth rates (RR=0.71, 95% CI= 0.34-1.51, 3 trials, n=264, moderate quality evidence), maternal toxicity at delivery (RR=1.18, 95% CI= 0.52-2.65; 2 trials, n=217, moderate quality evidence), low birth weight (RR=0.72, 95% CI 0.36-1.43; 1 trial, n=160, moderate quality evidence), retention (RR=0.99, 95% CI 0.93-1.06, 9 trials, n=743, low quality evidence) or abstinence (RR=1.14,

95% CI 0.75-1.73, 3 trials, n=367, low quality evidence). The authors noted that a better evidence base is needed.

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

The evidence comes from one Cochrane review with low to moderate quality evidence where the authors note that a better evidence base is needed. The review shows no differences for maternal outcomes for the use of motivational interviewing. The guideline makes no recommendations specifically for pregnant women. The evidence is of poor quality and applicability and therefore the new evidence is unlikely to impact on the recommendations.

New evidence is unlikely to change guideline recommendations.

51 – 03 For people who misuse drugs, are brief interventions associated with engagement in treatment, reductions/abstinence in use of drug(s)?

#### **Subquestion**

For people who misuse drugs, are interventions of a longer duration (for example, 12 weeks or more) compared with brief interventions associated with a reduction in the use of drug(s)/ abstinence and reduced risk of relapse at follow-up?

# Recommendations derived from this question

- 1.3.1.1 During routine contacts and opportunistically (for example, at needle and syringe exchanges), staff should provide information and advice to all people who misuse drugs about reducing exposure to blood-borne viruses. This should include advice on reducing sexual and injection risk behaviours. Staff should consider offering testing for blood-borne viruses.
- 1.3.1.2 Group-based psychoeducational interventions that give information about reducing exposure to blood-borne viruses and/or about reducing sexual and injection risk behaviours for people who misuse drugs should not be routinely provided.
- 1.3.1.3 Opportunistic brief interventions focused on motivation should be offered to people in limited contact with drug services (for example, those attending a needle and syringe exchange or primary care settings) if concerns about drug misuse are identified by the service user or staff member. These interventions should:
  - normally consist of two sessions each lasting 10–45 minutes
  - explore ambivalence about drug use and possible treatment, with the aim of increasing motivation to change behaviour, and provide non-judgemental feedback.
- 1.3.1.4 Opportunistic brief interventions focused on motivation should be offered to people not in contact with drug services (for example, in primary or secondary care settings, occupational health or tertiary education) if concerns about drug misuse are identified by the person or staff member. These interventions should:
  - normally consist of two sessions each lasting 10–45 minutes
  - explore ambivalence about drug use and possible treatment, with the aim of increasing motivation to change behaviour, and provide non-judgemental feedback.
- 1.3.2.1 Staff should routinely provide people who misuse drugs with information about self-help groups. These groups should normally be based on 12-step principles; for example, Narcotics Anonymous and Cocaine Anonymous.
- 1.3.2.2 If a person who misuses drugs has expressed an interest in attending a 12-step self-help group, staff should consider facilitating the person's initial contact with the group, for example by making the appointment, arranging transport, accompanying him or her to the first session and dealing with any concerns.

#### Surveillance decision

This review question should not be updated.

# Motivational interviewing

# **3-year surveillance summary**No relevant evidence was identified

#### 8-year surveillance summary

The new evidence comes from one Cochrane systematic review and 2 RCTs.

One Cochrane systematic review <sup>2</sup> was identified on motivational interviewing in people

with substance abuse. The review included 59 studies (n=13342) comparing motivational interviewing to either no treatment, treatment as usual, assessment and feedback or another treatment. Motivational interviewing had a significant effect on substance abuse post-intervention when compared to control (SMD 0.79, 95% CI 0.48-1.09), but less of an effect at short (SMD=0.17, 95% CI=0.09-0.26) and

medium follow-up (SMD=0.15, 95% CI=0.04-0.25) and no significant effect for long-term follow up. Motivational interviewing had a significant effect on substance abuse for medium follow-up (SMD=0.38, 95% CI 0.10-0.66) but there was no effect for short follow-up. No significant differences were found for any length of follow up when motivational interviewing was compared to treatment as usual or any other interventions. The authors note that the evidence is mostly low quality and the further research is needed, which is likely to change the estimates of effects and the confidence in them.

An RCT <sup>3</sup> was identified on usual care (n=20) compared counselling sessions using motivational interviewing for the person and their partner, monetary incentives for abstinence, and detoxification followed by naltrexone treatment (n=20) in males who inject opiates. The intervention had significantly higher negative weekly urine samples than the control (p<0.001) and reported significant declines in benzodiazepines use and buprenorphine injections (p<0.004).

One RCT <sup>4</sup> was identified on a web-based cognitive behavioural self-help intervention, that included interactive cognitive behavioural modules and a consumption diary compared to

a control group that had online psychoeducative information modules, for the reduction of cocaine in cocaine misusers (n=196). Treatment retention was significantly higher in the intervention group than the control group (p=0.04). There was no significant differences for cocaine dependence between the two groups (p=0.75). Quantity of cocaine used decreased significantly in both groups (p=0.009). However, the authors note that low rates of response at follow-up limits the power of the study.

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

The new evidence comes from one Cochrane systematic review that includes low evidence and reports uncertainty around the effect estimates, a very small (n=40) RCT and another RCT that has a low follow-up rate which limits the power of the study. The uncertainty and inconsistency of the new evidence means that there is no confidence in the effect estimates and the evidence is unlikely to impact upon the recommendations.

New evidence is unlikely to change guideline recommendations.

# Formal psychosocial interventions

51 – 04 For people who misuse drugs, what structured psychosocial interventions are associated with a reduction in the use of drug(s)/ abstinence and reduced risk of relapse at follow-up?

# Recommendations derived from this question

- 1.4.1.1 Drug services should introduce contingency management programmes as part of the phased implementation programme led by the NTA to reduce illicit drug use and/or promote engagement with services for people receiving methadone maintenance treatment.
- 1.4.1.2 Drug services should introduce contingency management programmes as part of the phased implementation programme led by the NTA to reduce illicit drug use, promote abstinence and/or promote engagement with services for people who primarily misuse stimulants.
- 1.4.1.3 Staff delivering contingency management programmes should ensure that:.
  - the target is agreed in collaboration with the service user

- the incentives are provided in a timely and consistent manner
- the service user fully understands the relationship between the treatment goal and the incentive schedule
- the incentive is perceived to be reinforcing and supports a healthy/drug-free lifestyle.
- 1.4.1.4 Contingency management aimed at reducing illicit drug use for people receiving methadone maintenance treatment or who primarily misuse stimulants should be based on the following principles.
  - The programme should offer incentives (usually vouchers that can be exchanged for goods or services of the service user's choice, or privileges such as take-home methadone doses) contingent on each presentation of a drug-negative test (for example, free from cocaine or non-prescribed opioids).
  - If vouchers are used, they should have monetary values that start in the region of £2 and increase with each additional, continuous period of abstinence.
  - The frequency of screening should be set at three tests per week for the first 3 weeks, two tests per week for the next 3 weeks, and one per week thereafter until stability is achieved.
  - Urinalysis should be the preferred method of testing but oral fluid tests may be considered as an alternative.
- 1.4.2.1 For people at risk of physical health problems (including transmittable diseases) resulting from their drug misuse, material incentives (for example, shopping vouchers of up to £10 in value) should be considered to encourage harm reduction. Incentives should be offered on a one-off basis or over a limited duration, contingent on concordance with or completion of each intervention, in particular for:
  - hepatitis B/C and HIV testing
  - hepatitis B immunisation
  - tuberculosis testing.
- 1.4.3.1 Drug services should ensure that as part of the introduction of contingency management, staff are trained and competent in appropriate near-patient testing methods and in the delivery of contingency management.
- 1.4.3.2 Contingency management should be introduced to drug services in the phased implementation programme led by the NTA, in which staff training and the development of service delivery systems are carefully evaluated. The outcome of this evaluation should be used to inform the full-scale implementation of contingency management.
- 1.4.4.1 Behavioural couples therapy should be considered for people who are in close contact with a non-drug-misusing partner and who present for treatment of stimulant or opioid misuse (including those who continue to use illicit drugs while receiving opioid maintenance treatment or after completing opioid detoxification). The intervention should:
  - focus on the service user's drug misuse
  - consist of at least 12 weekly sessions.
- 1.4.6.1 Cognitive behavioural therapy and psychodynamic therapy focused on the treatment of drug misuse should not be offered routinely to people presenting for treatment of cannabis or stimulant misuse or those receiving opioid maintenance treatment.
- 1.4.6.2 Evidence-based psychological treatments (in particular, cognitive behavioural therapy) should be considered for the treatment of comorbid depression and anxiety disorders in line

with existing NICE guidance (see section 6) for people who misuse cannabis or stimulants, and for those who have achieved abstinence or are stabilised on opioid maintenance treatment.

#### Surveillance decision

The review question should not be updated.

#### Cannabis

#### 3-year surveillance summary

A review 5 was identified which looked at pharmacotherapy and psychotherapy in cannabis withdrawal and dependence. Oral tetrahydrocannabinol (only available for a multiple sclerosis indication) was shown to be promising for the specific treatment of withdrawal symptoms. For cannabis dependence, rimonabant (which has been withdrawn in the UK for safety reasons) was found to be promising. The results also showed cognitive and behavioural therapies and motivational enhancement therapies to be effective and showed brief therapies to have good compliance and efficacy. The review also stated that voucher incentives have been shown to improve compliance and reduce the use of cannabis in certain populations. For cost-effectiveness the review stated that the most cost effective interventions were found to be brief combined cognitive and behavioural therapies and motivational enhancement therapies.

An overview <sup>6</sup> of cannabis use was also identified. This showed that the proportion of treatment provided for cannabis use had increased. It was stated that there were, at this time, no evidence-based pharmacotherapies for the management of cannabis. Furthermore, the interventions with the strongest evidence for success were stated as being brief CBT and contingency management whilst structured, family based interventions were the potent treatment option for adolescents. For young people involved with crime or with severe mental illness, longer more intensive interdisciplinary team therapies were thought to be needed.

Another review<sup>7</sup> was identified which investigated the problems associated with marijuana use. It discussed current knowledge limitations and potential areas for intervention and research advancement.

A Cochrane review 8 evaluated the efficacy of psychosocial interventions for those with cannabis abuse and/or dependence. Six studies of 1297 participants were included but no meta-analysis could be performed due to heterogeneity. The results suggested that counselling approaches may be beneficial for cannabis dependence and that group and individual sessions of CBT may also be efficacious. Furthermore, two studies suggested that the addition of voucher-based incentives may enhance treatment if used with other effective psychotherapeutic interventions. Abstinence rates were also found to be small and tended to favour individual CBT of 9 sessions or more. Overall, all included studies reported statistically significant reductions in cannabis use frequency and dependence symptoms. However, other measures of problems related to cannabis use were not consistently different. The authors concluded that no clear conclusions can be draw due to heterogeneity.

#### 8-year surveillance summary

Please see evidence under specific intervention types.

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

New evidence was identified at the 3-year on psychosocial interventions for cannabis misuse. Notably a Cochrane review concluded that no clear conclusions can be drawn due to heterogeneity. Therefore this evidence would not impact on the recommendations at this time.

No new evidence was identified at the 8 year surveillance that would change this conclusion.

New evidence is unlikely to change guideline recommendations.

#### Psychosocial interventions

# 3-year surveillance summary

A Cochrane review <sup>9</sup> investigated psychosocial interventions for treating psychostimulant use disorder. Twenty seven RCTs of 3663 participants were included. For the reduction of dropout rates and lowering cocaine use, results were found to be in favour of the interventions with some form of contingency management. The authors concluded that overall there was no data supporting a single treatment approach.

A meta-analysis <sup>10</sup> of 2340 patients was identified which investigated psychosocial treatment for cannabis, cocaine, opiate and polysubstance abuse and dependence. Results showed that psychosocial treatments were beneficial, especially for cannabis use. They were least effective for polysubstance use. The strongest effect was identified for contingency management interventions.

#### 8-year surveillance summary

The new evidence comes from one Cochrane systematic review and 6 RCTs.

An update of a Cochrane systematic review 11 was identified which included 9 trials (n=1792) of interventions for female drug-using offenders. The studies were all at unclear risk of bias due to a lack of information. The review reported that for treatment as usual compared to psychosocial intervention there were no significant differences in arrest rates, (2 studies; n=489; RR=0.82, 95% CI=0.45-1.52, low quality evidence) or for drug use (1 study; n=77; RR=0.65, 95% CI=0.20-2.12, low quality evidence). However, there was a significant reduction in reincarceration (3 studies; n=630, RR=0.46, 95% CI=0.34-0.64, moderate quality evidence). The authors note that more evidence is needed to increase precision in the effect estimates.

One RCT <sup>12</sup> was identified on 24 weeks of physician management compared to physician management combined with 12 weeks of manual-guided CBT in people with opioid dependency (n=141). There were no significant differences between the two groups for frequency of self-reported opioid use (p=0.96),

use over time (p=0.44) or consecutive weeks of opioid abstinence (p=0.84).

One RCT <sup>13</sup> was identified on a telephone-based intervention, which includes four sessions of motivational interviewing and CBT compared to delayed treatment for cannabis users (n=110 completing follow-up). At follow-up, the intervention group had significant reductions in dependence symptoms (p<0.001) and related problems (p<0.001) when compared to delayed treatment. At 4 weeks, confidence to reduce use of cannabis was significantly higher in the intervention group compared to the control group. At 12 weeks (p=0.002), the intervention group was significantly more abstinent than the control group (p=0.019).

One RCT <sup>14</sup> compared a 1 year comprehensive psychosocial intervention (n=90) to usual community care (n=90) in people with opioid use disorders who have been released from compulsory detention treatment centres. No significant differences were found for urine tests or self-reported drug use between the 2 groups (p>0.05).

One multi-centre RCT 15 was identified on active treatment (n=149) compared to delayed treatment (n=130) in adults (16-63 years) in outpatient addiction treatment centres in Germany who misuse cannabis (n=279). The treatment was 10 sessions that used a combination of CBT, Motivational Enhancement Therapy and problem-solving training. Significantly more people in the in the active treatment reported abstinence compared to the delayed treatment group (p<0.001). People in the active treatment group also reported positive results for secondary outcomes such as frequency of cannabis use, severity of dependence, number of cannabis dependence criteria and the number and severity of problems related to cannabis. However, the statistics for this were not reported in the abstract, just that the effect sizes were high to moderate and no comparison to the delayed treatment group was given. The trial reported that levels of abstinence, recorded from urine screenings, declined within 3 months in the active treatment group but no change for secondary outcomes (statistics not reported).

One RCT <sup>16</sup> was identified comparing 10 therapy sessions (n=90) to a control group receiving delayed treatment (n=32) in adults >16 years with cannabis dependence. The intervention group had significantly higher levels of abstinence than the control group (p<0.001) and cannabis use frequency per week was also significantly more improved (p<0.001).

One RCT <sup>17</sup> was identified comparing treatment as usual, consisting of an intensive outpatient programme with treatment as usual plus 12 months of enhanced continuing care, consisting of CBT for coping skills and monetary incentives for attendance, in people with cocaine dependence (n=152). Cocaine urine toxicology (p=0.0025) and abstinence composite (p=0.017) was significantly higher in the control group than the intervention group.

#### Topic expert feedback

One topic expert expressed the opinion that there may be consequences and risks associated with safeguarding and blood borne virus transmissions. The topic expert expressed concern on the treatment of carers by service providers and enablers. Family focussed interventions are for recovery similar to that of a patient with cancer and yet the treatment of these carers is discriminatory and abusive. However, no evidence was identified in this area to support this view.

Many clinicians are now being asked to practice in a "recovery" paradigm. It has meant that many clinicians interpret this as insisting patients undergo reduction from prescribed medication against their will. The topic expert notes that the guideline needs to be updated to reflect such a use of psychosocial interventions and to retrieve evidence regarding the effectiveness of practicing in such a way. However, no evidence on this specific area was identified.

Another comment was that in the guideline the main outcome measure was retention in treatment. Now it is successful completion of

treatment that is the proxy measure for recovery. This means that an updated guideline may focus on how best to leave treatment and enter the local recovery community. However, no evidence was identified in this area.

#### Impact statement

A Cochrane review and a meta-analysis was identified at the 3-year surveillance.

The Cochrane review investigated psychosocial interventions for treating psychostimulant use disorder and found interventions with some form of contingency management to be more favourable. Similarly, the meta-analysis on psychosocial treatment for substance abuse reported the strongest effect for contingency management interventions. The guideline recommends contingency management so this is consistent with the guideline recommendations.

At the 8-year surveillance the new evidence comes from one Cochrane systematic review and 6 RCTs. While one RCT reported no significant differences, the others reported significant differences for outcomes in favour of the psychosocial interventions, although the exact interventions delivered differed between studies. While the guideline does not recommend the specific treatments, or the specifics of the treatment are unclear from the abstract, it does recommend some psychosocial treatments for drug misuse and notes prior to the recommendations that 'A range of psychosocial interventions are effective in the treatment of drug misuse; these include contingency management and behavioural couples therapy for drug-specific problems and a range of evidence-based psychological interventions, such as cognitive behavioural therapy, for common comorbid mental health problems.' More evidence, from larger RCTs, would be needed on a specific intervention in order for it to be considered for inclusion in the guideline.

New evidence is unlikely to change guideline recommendations.

Cognitive behavioural therapy (CBT)

3-year surveillance summary

A review<sup>18</sup> was identified which explored CBT for the treatment of cocaine dependence. No results were provided.

Another study<sup>19</sup> of 1873 male veterans seeking treatment for substance use disorders in 5 CBT orientated and 5 12 step orientated programs were examined. The change in the pattern of proximal outcomes was similar between groups. After discharge attendance at 12 step programmes was found to be associated with greater maintenance for the majority of the proximal outcomes measured. Greater effects were also seen with 12 step programmes compared to CBT for abstinence. This was thought to be due to having a sponsor, reading the 12 step materials, attending the 12 step meetings and having an abstinence goal.

#### 8-year surveillance summary

The new evidence comes from 3 RCTs.

One RCT <sup>20</sup> was identified on contingency management (CM) compared to CM plus CBT or CBT alone or CBT, contingency management and CBT related rewards in young adults who sought treatment for cannabis use. Rewards did not significantly improve CBT outcomes (no p-value stated). CBT addition for CM decreased outcomes (no p-value stated) and significantly decreased the number of cannabis-free urine tests (p=0.02). When compared to the other groups, the CM group had significantly higher numbers of cannabis-free urine tests (p=0.02).

Another RCT  $^{21}$  was identified on 16 weeks of either CBT (n= 53), CM (CM = 49); CBT plus CM (n=49) or no treatment (n= 51) in people who had received 2 weeks of buprenorphine induction/stabilisation. No significant differences in opioid use were found between the groups (p=0.75).

One RCT <sup>22</sup> was identified on community based methadone maintenance treatment plus CBT

(n=120) compared to methadone maintenance treatment alone (n=120) in people who are dependent on opiates. The CBT group had a significantly higher number of opiate-negative urine tests at 12 weeks (p<0.05) and 26 weeks (p<0.05). Retention rates at 12 weeks (p=0.88) and 26 weeks (p=0.19) were not significantly different between the 2 groups.

# Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

The 3-year surveillance found one study on CBT compared to 12-step programmes and found 12-step programmes to be the favoured intervention. This is consistent with the guideline which recommends that information on self-help group based on 12-step principles should be given to those who misuse drugs.

In the 8-year surveillance the new evidence comes from 3 RCTs. Two report the addition of CBT to CM either had no effect or resulted in worse outcomes. The other RCT did not use CM as a comparator but methadone maintenance treatment alone, and found an effect in favour of CBT. The guideline does not recommend CBT for the treatment of drug misuse, unless there is comorbid depression or anxiety or in inpatient residential settings. However it does recommend CM. As the only evidence that found an effect in favour of CBT did not compare to CM and the ones that did found the effect was in favour of CM, it is unlikely that the new evidence will impact on the recommendations.

New evidence is unlikely to change guideline recommendations.

#### Vouchers

# 3-year surveillance summary

An RCT<sup>23</sup> examining abstinence based vouchers and CBT was identified during the 3 year surveillance of this guideline. This study was included in the guideline during development.

Another RCT<sup>24</sup> was identified which randomised 96 patients with cocaine addiction

to standard outpatient treatment, CRA plus low monetary value vouchers or to community reinforcement approach (CRA) plus high monetary value vouchers. Overall, the results showed that combining CRA with vouchers was more effective than standard treatment.

# 8-year surveillance summary

One RCT <sup>25</sup> was identified on voucher-based reinforcement therapy for 12 weeks (n=62)

compared to 36 weeks (n=68) in people misusing cocaine or methadone-maintenance dependent. The 36 week group had significantly longer self-reported abstinence in the first year (p=0.024) but not in the second year, assessed by 3 urine samples weekly.

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

The 3-year surveillance included 1 new RCT that showed that combining CRA with vouchers

was more effective than standard treatment. The new evidence at the 8-year surveillance comes from one RCT that found longer voucher-based reinforcement better than shorter. The guideline recommends vouchers but does not recommend a length the voucher should be given for. Therefore there is no impact on the recommendations at this time. More evidence is needed to consider this area for inclusion in the guideline.

New evidence is unlikely to change guideline recommendations.

# Contingency management (CM)

# 3-year surveillance summary

A meta-analysis<sup>26</sup> of 4 RCTS was identified which examined day treatment and contingency management in homeless people with a primary crack cocaine addiction. The benefits for contingency management and day treatment and for contingency management alone were stronger than for day treatment alone. Abstinence prevalence was also found to be higher for contingency management and day treatment than for no contingency management.

An RCT <sup>27</sup> examined the effects of cognitive behavioural relapse prevention, contingency management and their combination in 100 cocaine dependent patients. Significant effects on urine toxicology and self-reported cocaine use were found with contingency management. The combination intervention group showed better cocaine urine toxicology at 6 months and 9 months when compared to treatment as usual. In addition, trends at 6 months and 9 months were found in favour of the combination intervention compared to contingency management. However differences between the groups were not significant after 9 months.

A meta-analysis<sup>28</sup> looking at the effectiveness of contingency management in treating substance use disorder was identified during this 3 year surveillance review. However, this study was included in the original guideline.

Another study<sup>29</sup> was identified which investigated adding contingency management to motivational enhancement therapy (MET) plus CBT in 240 marijuana dependent people.

Participants were assigned to MET + CBT, contingency management only, MET + CBT and contingency management, or to a case management control group. Abstinence outcomes were found to be better in the two groups involving contingency management.

Another RCT <sup>30</sup> investigated the mechanisms of behaviour change in a marijuana treatment. Two hundred and forty adult marijuana smokers were randomised to a case management control condition, MET + CBT coping skills training, contingency management with MET + CBT or to contingency management alone. Results suggested that the most efficacious treatments for marijuana dependent adults were those that increase self-efficacy.

A cost-effectiveness analysis <sup>31</sup> was identified which evaluated the use of prize based and voucher based contingency management for cocaine or heroin dependent outpatients in community treatment centres. Contingency management with prizes was likely to be the most cost-effective intervention.

# 8-year surveillance summary

The new evidence comes from 5 RCTs and a health economic analysis.

One RCT <sup>32</sup> was identified on a 12-week contingency management intervention (n=70) compared to referral to community resources (n=57) in men who have sex with men and use methamphetamines. The trial reported that the contingency management group were more likely to submit urine samples positive for methamphetamine than control participants but

this effect was not statistically significant (RR=1.21; 95% CI: 0.95-1.54, p=0.11)...

One RCT <sup>33</sup> was identified on 12 weeks of contingency management (n=126) compared to usual treatment (n=120) in people undergoing methadone maintenance (n=246). The contingency management group was significantly higher than the usual treatment group for retention rates (p=0.010) and negative urine testing rates (p<0.001). The contingency management group was significantly less likely to miss treatment visits (p=0.008) and were more likely by 1.91 (95% CI: 1.53-2.39) to have a negative urine sample.

Another RCT <sup>34</sup> was identified on a 16-week standard psychosocial treatment compared to 3 groups of different durations (1, 2 or 4 months) of contingency management plus psychosocial treatment in people with methamphetamine disorders (n=118). There were significant differences between the four groups for consecutive days abstinent, methamphetamine abstinence, favouring longer durations of contingency management (p<0.05).

Another RCT <sup>35</sup> was identified on 24 weeks of a CRA compared to twelve-step facilitation or to contingency management with monetary vouchers, dependent on if they had cocainenegative urine tests and compared to noncontingent but voucher control (VC) in pregnant women and women with young children with cocaine dependence (n=145). Compared to VC, contingency management had significantly higher duration of cocaine abstinence (p<.01).

Finally, an RCT<sup>36</sup> assessed whether contingency management delivered in routine clinical practice in the UK increased the completion of hepatitis B virus vaccination in individuals receiving opioid substitution therapy. Clusters were randomly allocated 1:1:1 to provide vaccination without incentive (treatment as usual), with fixed value contingency management (three £10 vouchers), or escalating value contingency

management (£5, £10, and £15 vouchers). This study found a significant increase in successful completion of the accelerated vaccination schedule in the two CM-enhanced groups (versus treatment-as-usual). A health economic analysis<sup>37</sup> concluded that using financial incentives to increase hepatitis B vaccination completion in people who inject drugs could be a cost-effective use of health-care resources in the UK as long as the incidence remains above 1.2%.

#### Topic expert feedback

One topic expert noted that there is limited evidence regarding contingency management, testing is infrequent, there are no rewards systems and people's samples are falsified due to there being no testing on site.

Another topic expert highlighted that a larger cluster randomised trial (n>500) of contingency management enhancement versus treatment-as-usual has recently completed. This trial focuses on quitting non-prescribed opiate use and attendance/retention in treatment.

Analyses are currently underway.

# Impact statement

At the 3-year surveillance 2 meta-analyses, a cost-effectiveness analysis, 2 RCTs and a study were identified. Contingency management was reported to result in better outcomes than a comparator treatment.

The new evidence at the 8-year surveillance comes from 5 RCTs and a health economic analysis that report contingency management results in better outcomes than a comparator treatment. The guideline recommends contingency management for drug misuse treatment. Therefore the new evidence is consistent with the guideline recommendations.

New evidence is unlikely to change guideline recommendations.

# Computer based

3-year surveillance summary

The efficacy of an interactive computer based CRA plus vouchers intervention was investigated in an RCT<sup>38</sup>. Participants were 135

patients with opioid dependence who were randomised to therapist delivered CRA plus vouchers, computer assisted CRA with vouchers or to standard treatment. All patients received maintenance treatment with buprenorphine. Compared to the standard intervention both CRA plus voucher interventions produced significantly greater weeks of abstinence. Both CRA groups were comparable for weeks of continuous opioid and cocaine abstinence.

#### 8-year surveillance summary

The new evidence comes from 6 RCTs.

One RCT 39 was identified on a self-guided web-based treatment, including 6 modules on cognitive, motivational, and behavioural principles, compared to a control of 6 modules of web-based educational information on cannabis, in people who wanted to stop or reduce cannabis use (n=225, 6-week follow-up n=149, 3-month follow-up n=122). The intervention group only completed a mean of 3.5 out of 6 modules. The intervention group had significantly lower number of days of cannabis use in the last month (p=0.02), significantly lower amount of cannabis used (p=0.01) and less symptoms of abuse of cannabis (p=0.047). Cannabis dependence and abstinence was not significant between the 2 groups. At 3 months, the intervention group had significantly lower rates of severe cannabis dependence symptoms (p<0.05), but the amount of cannabis used was not significant between the 2 groups.

One RCT <sup>40</sup> was identified that compared 6 months of a web-based intervention, that included 3 modules derived from CBT and motivation enhancement (n=81) compared to a control group on the waitlist (n=79) for users of amphetamine-type stimulant users. Self-reported amphetamine-type stimulant use declined similarly in both groups. Help seeking was reported higher in the intervention group than the control group but no statistics were provided for this.

One RCT <sup>41</sup> was identified on 12 week treatment with CM and buprenorphine plus internet community reinforcement compared to a control group of only CM and buprenorphine in people with opioid dependence (n=170). Those in the internet group had on average 9.7 days more of abstinence than the control group

and a lower drop-out rate (HR=0.47; 95% CI=0.26-0.85).

One RCT <sup>42</sup> was identified on treatment for those with substance abuse (n=160). It compared 12 months of standard methadone maintenance treatment compared to standard treatment with reduced standard counselling in a specialty addiction community-based treatment programme but with the addition of Therapeutic Education System (TES), webbased behavioural treatment. Opioid abstinence, measured by urine testing (p<.01) and by other objective methods (p<.05) was significantly higher in the TES group than the standard treatment group.

One RCT 43 was identified on a web-based intervention of 8 modules that compared selfhelp with chat (n=114) to self-help without chat (n=101) or a waitlist control group (n=93) for reducing cannabis use in cannabis misusers. The chat group and the non-chat group completed an average of about 3.2 modules. Only 27 out of 114 in the chat group had at least one chat. Follow-up was only completed by 38% of participants. At 3 months there was a significant difference for the number days in a week that people used cannabis in the chat group compared to the non-chat group (p=0.02), and the waiting list group (p=0.03). There were no significant difference between the non-chat and the waiting list group for that outcome (p=0.87). For self-reported abstinence the non-chat group was significantly lower than in the chat group (OR=0.21, 95% CI: 0.02-2.33, p=0.05).

One RCT <sup>44</sup> was identified on methadone maintenance compared to methadone maintenance plus 7 modules over 8 weeks on computer-based training in cocaine-dependent people (n=101). Abstinence ≥3 consecutive weeks was significantly higher in the intervention group than the control group (p<0.05, OR=0.36).

A conference abstract<sup>45</sup> was identified about computerised motivational enhancement therapy (MET)/CBT for the treatment of cannabis abuse and dependence.

An RCT<sup>46</sup> randomised 74 patients with cocaine abuse or dependence to a 3 session CBT group or to a 3 session CBT group with MET +

CBT. Those in the MET + CBT group attended more treatment sessions after the study and reported a significantly greater desire for abstinence and expectation of success. Those in the MET+ CBT group also expected that they would experience greater difficulty in maintaining abstinence. No differences were seen between groups for cocaine use.

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

At the 3-year surveillance the evidence indicated that there was no difference in outcomes for the addition of a computer based program.

At the 8-year surveillance the new evidence comes from 6 RCTs on web or computer based

treatment for drug misuse. The evidence is inconsistent, with 3 studies finding no differences for drug use between the treatment and the control and 2 studies favouring a computer/web-based treatment. The interventions delivered are also different between the 2 groups. The original guideline did not search for or make any recommendations on web or computer based treatments for drug misuse. This is therefore a new type of treatment that, due to the inconsistency of the evidence, does not warrant inclusion in the guideline at this time. More evidence would be required to consider this area for inclusion.

New evidence is unlikely to change guideline recommendations.

#### Workplace based

#### 3-year surveillance summary

A study<sup>47</sup> of 111 unemployed adults in a methadone programme was identified which examined if attendance rates in a workplace predicted subsequent outcome of employment based reinforcement of cocaine abstinence. During induction participants provided urine samples but were able to work despite their urinalysis results. After induction participants had to give urinalysis evidence of cocaine abstinence in order to work and maintain maximum pay. Results showed that attendance during the induction period was independently associated with urinalysis evidence of cocaine abstinence under the employment based abstinence reinforcement contingency.

#### 8-year surveillance summary

The new evidence comes from 2 RCTs.

One RCT <sup>48</sup> was identified on unemployed people who misuse opiates or cocaine while on methadone treatment undertaking an abstinence programme involving employment as data entry employees. One group could work regardless of drug usage (n=24), and the other was abstinence-contingent employment (n=27), where employees required cocaine and opiate negative urine tests to work and receive the maximum pay. Those in the abstinence-contingent group had significantly greater

numbers of cocaine-negative urine samples in the year than the control group (p=0.01, OR=4.61). However, in the follow-up year there were no significant difference for cocainenegative urine samples (p=0.93).

One RCT <sup>49</sup> was identified on CM compared to control in people with opioid dependency who had undergone detox (n=38). While all groups earnt vouchers for attendance and performance at a therapeutic workplace, those in the contingency group had to take naltrexone injections to be able to work and earn vouchers. The number of naltrexone injections accepted by the contingency group was significantly higher than in the control group (p=0.002).

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

At the 3-year surveillance 1 study was identified that showed that work attendance during an induction period of no contingency was independently associated with urinalysis evidence of cocaine abstinence under the employment based abstinence reinforcement contingency. The results for a comparator were

not reported so it is unlikely that this would affect the recommendations.

The new evidence comes from 2 small RCTs on workplace related rewards for stopping drug use. One RCT shows significant benefits for workplace related rewards, whereas the other shows significant benefits in the first year but not in subsequent years. As the long-term

outcomes are uncertain and the evidence comes from only 2 RCTs, more evidence would need to be identified in order to consider this area for inclusion in the guideline at this time.

New evidence is unlikely to change guideline recommendations.

#### Prize based reinforcement

# 3-year surveillance summary

One RCT<sup>50</sup> was identified on the effect of reinforcement density in prize based abstinence reinforcement. Heroin and/or cocaine users (n=116) in methadone maintenance were randomised to a noncontingent control group, manual drawing with standard prize density or to computerised drawing with standard or high density. Cocaine dependence diagnoses were significantly lower after treatment in the contingency groups compared with the non-contingent groups. Furthermore, computerised drawing with high density prizes enhanced reduction of cocaine use.

A retrospective analysis<sup>51</sup> of this study was also carried out to investigate the effect of the probability of winning a prize and the size of the prize won. The findings showed that a high probability of winning, but not the size of the prize, was associated with a larger percentage of cocaine negative urine but not opiate negative urine.

An RCT<sup>52</sup> randomised 67 cocaine and opiate users to a cocaine contingency group or an opiate-cocaine contingency group. No group

differences in cocaine abstinence during or post CM were found. There were also no differences in opiate abstinence during CM. However, opiate abstinence was found to be greater in the opiate-cocaine group post CM and heroin craving was reduced in this group both during and post CM. The number of draws earned per cocaine negative urine count was found not to impact on cocaine use.

# 8-year surveillance summary

No relevant evidence was identified.

# Topic expert feedback

No topic expert feedback was relevant to this evidence.

# Impact statement

At the 3-year surveillance there was 2 RCTs and one retrospective analysis identified. The results support the used of reward-based treatments and CM. The evidence was consistent with the guideline which recommends CM. No new evidence was identified in the 8-year surveillance of this guideline to change this conclusion.

New evidence is unlikely to change guideline recommendations.

# Narcotics anonymous

#### 3-year surveillance summary

The clinical utility and effectiveness of alcoholic anonymous (AA) and narcotics anonymous (NA) was explored in an prospective study (n=127)<sup>53</sup>. Results showed that adolescents participation in AA/NA was less common than in adults. Around one quarter of adolescents

attended meetings during the first 3 months. An independent effect of AA/NA on abstinence was also found. This was found to persist over and above the effects of pre-treatment AA/NA attendance, self-efficacy, prior treatment, abstinence goal and concomitant outpatient treatment.

8-year surveillance summary

No relevant evidence was identified.

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

The 3-year surveillance found one study on AA and NA that reported an independent effect for AA/NA. This is consistent with the guideline which recommends that information on self-

help group based on 12-step principles, such as NA, should be given to those who misuse drugs.

No new evidence was identified in the 8-year surveillance of this guideline to change this conclusion.

New evidence is unlikely to change guideline recommendations.

#### 12 step programmes

# 3-year surveillance summary

A study<sup>54</sup> was identified which investigated social support, spirituality, religiousness, life meaning and affiliation with the 12 steps fellowships. Recovering people (n=353) were investigated. Lower stress and higher quality of life were associated with longer recovery time. Furthermore, social support, spirituality, life meaning, religiousness and the 12 step affiliation were found to buffer stress significantly and enhance quality of life.

Another study<sup>55</sup> investigated the effectiveness of 12 step self-help group attendance. Participants had substance use disorder (n=1683) and were from 88 community residential facilities. Results showed that those who were abstinent at 1 year post treatment and who attended the 12 step groups were no more likely to be abstinent at 4 years than abstinent people who did not attend. Those not abstinent at 1 year but who did attend the 12 step groups showed a significant improvement in abstinence rates at 4 years compared to those who did not. In addition, no benefits from the 12 step group attendance was found for those abstinent at 1 year. However, significantly fewer problems at 4 years were found for those who were non-abstinent and who attended the 12 step groups.

An RCT<sup>56</sup> investigated referrals to 12 step selfhelp groups. Three hundred and forty five patients with substance use disorder were recruited and randomised to standard referral or to intensive referral. Intensive referral was associated with improved 12 step group attendance and involvement and improved substance use outcomes.

#### 8-year surveillance summary

No relevant evidence was identified.

#### Topic expert feedback

One topic expert noted that despite the recommendation to facilitate participation in mutual aid groups based on 12 step principles, there is little evidence that this recommendation has been widely implemented. Humphreys and Lembke (2013) argue that peer based interventions and Mutual Aid are two of best of three evidenced interventions for recovery (the other being recovery housing). The topic expert suggested that there has been a rise and fall of SMART Recovery UK and the emergence of ACT (Acceptance and Commitment Therapy) Peer Recovery. Since 2007, there has been an increase in the use of Asset Based Community Development (ABCD) as a public health approach to the establishment of recovery communities which exist outside of formal commissioned treatment systems. Topic expert feedback indicated that any new or refreshed guideline would need to make suggestions on ways of increasing participation in recovery communities. There is a growing critique of interventions that rely solely on 1:1 therapist and client relationships in favour of approaches like recovery coaching which seeks to introduce someone to their local recovery community. However, no evidence was identified in this specific area to support this view.

Another topic expert noted that there are specific attempts to establish mutual aid and self-help groups for particular populations. A good example is the Islamic interpretation of the 12 step programme ("Kick it") in Birmingham and "Sikh To Recover" also in the West Midlands.

# Impact statement

The 3-year surveillance found 2 studies and 1 RCT on 12-step programmes and found 12-

step programmes resulted in significantly fewer problems, provided support and that intensive referral was associated with improved 12 step group attendance. This is consistent with the guideline which recommends that information on self-help group based on 12-step principles should be given to those who misuse drugs.

No new evidence was identified in the 8-year surveillance of this guideline to change this recommendation.

The topic experts noted that there was an emergence of ACT and ABCD approaches to

the establishment of recovery communities which exist outside of formal commissioned treatment systems. However, no evidence was identified in this specific area to support this view and this should be reviewed at the next surveillance if new evidence is identified at this time

New evidence is unlikely to change guideline recommendations.

51 – 05 For people who misuse drugs, what structured psychosocial interventions in combination with pharmacological interventions are associated with a reduction in the use of drug(s)/abstinence and reduced risk of relapse at follow-up?

# Recommendations derived from this question

- 1.4.5.1 For people receiving naltrexone maintenance treatment to help prevent relapse to opioid dependence, staff should consider offering:
  - contingency management to all service users (based on the principles described in recommendations 1.4.1.3 and 1.4.1.4)
  - behavioural couples therapy or behavioural family interventions to service users in close contact with a non-drug-misusing family member, carer or partner (based on the principles described in recommendation 1.4.3.1 for behavioural couples therapy).

#### Surveillance decision

This review question should not be updated.

# 3-year surveillance summary

A Cochrane review<sup>57</sup> of RCTs investigated the effectiveness of psychosocial interventions plus pharmacological interventions compared to pharmacological interventions alone for opioid detoxification. Nine relevant studies were identified. Results showed that the combination of both psychosocial and pharmacological interventions was effective for the completion of treatment, use of opiate and results at follow-up. Furthermore, the combination of the two interventions was found to be effective for compliance.

An updated Cochrane review<sup>58</sup> examined the effectiveness of psychosocial interventions plus

any agonist maintenance treatment compared to standard agonist treatment for opioid dependence. Twenty eight studies of 2945 patients were included. The combination of interventions did not show any benefit compared to standard agonist treatment for treatment retention, use of opiate during treatment, compliance, psychiatric symptoms, depression and the number of patients still in treatment at the end of follow-up. However, results did show the combination of interventions to improve the number of patients abstinent at follow-up.

Another review<sup>59</sup> was also identified. This investigated behavioural counselling for

optimising the use of buprenorphine for treating opioid dependence in community based settings. The review suggested behavioural counselling which focussed on enhancing the motivation of patients during treatment entry and which was followed, during the primary phase of treatment, by placing an emphasis on improving coping/relapse prevention skills.

#### 8-year surveillance summary

The new evidence comes from 2 Cochrane systematic reviews.

One Cochrane systematic review <sup>60</sup> was identified on psychosocial combined with pharmacological interventions compared to pharmacological alone. The review included 11 studies (n=1592) on 5 psychosocial and 2 pharmacological treatments (methadone and buprenorphine). Psychosocial combined with pharmacological significantly reduced dropouts (RR 0.71, 95% CI 0.59-0.85), opiate use throughout treatment, (RR 0.82, 95% CI 0.71-0.93), opiate use at follow-up (RR 0.66, 95% IC 0.53-0.82) and absences from clinics through treatment (RR 0.48, 95%CI 0.38-0.59).

One Cochrane systematic review <sup>61</sup> was identified on psychosocial plus agonist maintenance treatments compared to agonist maintenance treatments alone to treat opioid dependence. The review included 35 studies (n=4319) on 13 psychosocial interventions. The control group in the studies often included counselling sessions in addition to methadone, so the review only is relevant to comparing the addition of specific structured interventions. Treatment retention was not significant for psychosocial combined with any maintenance

pharmacological treatment compared to standard maintenance treatment (RR 1.03, 95% CI 0.98-1.07) or for abstinence (RR 1.12, 95% CI 0.92-1.37). The review concluded that no additional benefit was found for the addition of contingency approaches or adding psychosocial support to maintenance treatments.

#### Topic expert feedback

One topic expert noted that novel psychoactive substances have made a rapid emergence into the UK drug scene in the last 2-3 years. The topic expert notes that it is crucial that the evidence is updated to take account of this changing phenomenon. However, no new evidence was identified on this.

# Impact statement

The new evidence at the 8-year surveillance comes from 2 updated Cochrane reviews, which were also identified at the 3-year surveillance. One reports an effect in favour of pharmacological treatment and psychosocial treatment, compared to pharmacological treatment alone. The second finds no difference for adding a psychosocial treatment to an agonist maintenance treatment. The review concluded that no additional benefit was found for the addition of contingency approaches or adding of any psychosocial support to maintenance treatments. The guideline only makes recommendations on antagonists and not agonists. Therefore the new evidence does not impact on the current recommendations.

New evidence is unlikely to change guideline recommendations.

# Residential, prison and inpatient care.

51 – 06 For people who misuse drugs, are residential settings associated with a reduction in use of drug(s)/abstinence and reduced risk of relapse at follow-up?

# **Subquestion**

For people who misuse drugs, are there particular subgroups who are more likely to benefit from treatment in residential settings?

# Recommendations derived from this question

- 1.5.1.1 The same range of psychosocial interventions should be available in inpatient and residential settings as in community settings. These should normally include contingency management, behavioural couples therapy and cognitive behavioural therapy. Services should encourage and facilitate participation in self-help groups.
- 1.5.1.2 Residential treatment may be considered for people who are seeking abstinence and who have significant comorbid physical, mental health or social (for example, housing) problems. The person should have completed a residential or inpatient detoxification programme and have not benefited from previous community-based psychosocial treatment.
- 1.5.1.3 People who have relapsed to opioid use during or after treatment in an inpatient or residential setting should be offered an urgent assessment. Offering prompt access to alternative community, residential or inpatient support, including maintenance treatment, should be considered.

# Surveillance decision

This review question should not be updated.

# 3-year surveillance summary

An RCT<sup>62</sup> was identified which investigated health realisation and 12 step approaches in residential programmes for women for substance abuse treatment. It was found that interventions were comparable for substance use, criminal justice involvement, employment, housing, adverse effects of substance use and psychological wellbeing. A significant decline for substance use was found for both groups between admission and follow-up. A decline was also found in adverse effects of substance use between admission and follow-up.

# 8-year surveillance summary

One RCT <sup>63</sup> was identified on recovery housing alone compared to usual care or the intervention group of abstinence-contingent recovery housing with reinforcement-based treatment in people exiting pharmacological dependent opioid detoxification (n = 243). The latter group had significantly higher drug abstinence than recovery housing alone or usual care (p=<0.001). The intervention group also was significantly higher in abstinence criteria than usual care (p=0.016). Time spent in recovery housing mediated abstinence

outcomes was longer in the intervention group than the recovery housing group (p<0.002).

#### Topic expert feedback

No topic expert feedback was relevant to this evidence.

#### Impact statement

The new evidence from the 8-year review and the 3-year review comes from 2 RCTs. One reports that both health realisation and 12 step approaches in residential programmes for women results in a significant decline in substance use. Another review reported significantly higher outcomes for abstinence-contingent recovery housing with reinforcement-based treatment. The guideline does not make any specific recommendations on contingent recovery housing but does recommend CM and rewards based models. Therefore the new evidence is unlikely to impact on the guideline recommendations.

New evidence is unlikely to change guideline recommendations.

51 – 07 For people who misuse drugs, are coerced interventions in comparison with no treatment and/or prison associated with reduced risk of relapse at follow-up and reduced crime?

# Recommendations derived from this question

- 1.5.2.1 For people who misuse drugs, access to and choice of treatment should be the same whether they participate in treatment voluntarily or are legally required to do so.
- 1.5.2.2 For people in prison who have drug misuse problems, treatment options should be comparable to those available in the community. Healthcare professionals should take into account additional considerations specific to the prison setting, which include:
  - the length of sentence or remand period, and the possibility of unplanned release
  - risks of self-harm, death or post-release overdose.
- 1.5.2.3 People in prison who have significant drug misuse problems may be considered for a therapeutic community developed for the specific purpose of treating drug misuse within the prison environment.
- 1.5.2.4 For people who have made an informed decision to remain abstinent after release from prison, residential treatment should be considered as part of an overall care plan.

#### Surveillance decision

This question should not be updated.

# 3-year surveillance summary

No relevant evidence was identified.

# 8-year surveillance summary

No relevant evidence was identified.

#### Topic expert feedback

One topic expert noted that application of psychosocial interventions in custodial environments, whereby a more punitive approach can sometimes be used (for example, stopping methadone maintenance against an individual's will) can demotivate the patient to engage in psychosocial interventions. However, no evidence was found to support this view.

#### Impact statement

No evidence was identified at the 8 or 3-year surveillance. However, a topic expert noted a punitive approach can demotivate patients to engage in interventions. No evidence was found to support this view and the guideline does not make any specific recommendations for punitive approaches.

New evidence is unlikely to change guideline recommendations.

# **Research recommendations**

RR – 01 Which methods of implementing contingency management (including delivering and stopping incentives) and which settings (including legally mandated, community-based and residential) – compared with one another and with standard care – are associated with the longest periods of continued abstinence and reduced drug misuse, and with maintenance of abstinence/reduction of drug misuse at follow-up?

No evidence was identified at the 8-year surveillance of this guideline and the evidence identified at 3-years does not directly answer the research recommendation:

A review<sup>64</sup> was identified which examined CRA for opioid dependence treatment. Results showed that CRA in combination with methadone maintenance reduced opioid and other drug use, improved legal status, led to less psychiatric symptoms and improved vocational and social functioning. Furthermore, CRA with vouchers was found to improve opioid detoxification rates from buprenorphine by helping to retain patients for long enough for an improvement to be made. It was also found that CRA with naltrexone may sustain abstinence.

This research recommendation will be considered again at the next surveillance point.

RR – 02 For people who misuse drugs and who are participating in contingency management, which method of testing – urinalysis, sweat analysis or oral fluid analysis – is most sensitive, specific, cost effective and acceptable to service users?

No new information was identified at any surveillance review. This research recommendation will be considered again at the next surveillance point.

RR – 03 For people who inject drugs, do needle and syringe exchange programmes with a greater psychosocial content reduce injection and sexual risk behaviours and rates of seroprevalence of blood-borne virus infection more than programmes with minimal psychosocial content? Examples of greater psychosocial content include distribution of syringes and needles by staff and/or provision of psychoeducation on reducing the risk of blood-borne viruses. Examples of minimal psychosocial content include machine dispensing of syringes and needles and provision of minimal or no information on reducing blood-borne virus risk

No new information was identified at any surveillance review. This research recommendation will be considered again at the next surveillance point.

RR – 04 Is residential treatment associated with higher rates of abstinence or reduction in drug misuse than community-based care?

No new information was identified at any surveillance review. This research recommendation will be considered again at the next surveillance point.

# References

- Terplan M, Ramanadhan S, Locke A et al. (2015) Psychosocial interventions for pregnant women in outpatient illicit drug treatment programs compared to other interventions. Cochrane Database of Systematic Reviews.
- 2. Smedslund G, Berg RC, Hammerstrøm KT et al. (2011) Motivational interviewing for substance abuse. Cochrane Database of Systematic Reviews .
- 3. Otiashvili D, Kirtadze I, O'Grady KE et al. (1-1-2012) Drug use and HIV risk outcomes in opioid-injecting men in the Republic of Georgia: behavioral treatment + naltrexone compared to usual care. Drug & Alcohol Dependence 120:14-21.
- 4. Schaub M, Sullivan R, Haug S et al. (2012) Web-based cognitive behavioral self-help intervention to reduce cocaine consumption in problematic cocaine users: Randomized controlled trial. [References]. Journal of Medical Internet Research 14:p47-p60.
- 5. Benyamina A, Lecacheux M, Blecha L et al. (2008) Pharmacotherapy and psychotherapy in cannabis withdrawal and dependence. [Review] [51 refs][Erratum appears in Expert Rev Neurother. 2008 Sep;8(9): 1418]. Expert Review of Neurotherapeutics 8:479-491.
- 6. Copeland J and Swift W. (2009) Cannabis use disorder: epidemiology and management. [Review] [71 refs]. International Review of Psychiatry 21:96-103.
- 7. Budney AJ, Roffman R, Stephens RS et al. (2007) Marijuana dependence and its treatment. [Review] [60 refs]. Addiction Science & Clinical Practice 4:4-16.
- 8. Denis C, Lavie E, Fatseas M et al. (2006) Psychotherapeutic interventions for cannabis abuse and/or dependence in outpatient settings. [Review] [58 refs]. Cochrane Database of Systematic Reviews 3:CD005336.
- 9. Knapp WP, Soares B, Farrel M et al. (2007) Psychosocial interventions for cocaine and psychostimulant amphetamines related disorders. Cochrane Database of Systematic Reviews.
- Dutra L, Stathopoulou G, Basden SL et al. (2008) A meta-analytic review of psychosocial interventions for substance use disorders. American Journal of Psychiatry 165:179-187.
- Perry AE, Neilson M, Martyn-St JM et al. (2015) Interventions for female drug-using offenders. [Review][Update of Cochrane Database Syst Rev. 2014;1:CD010910; PMID: 24399765].
   Cochrane Database of Systematic Reviews 6:CD010910.
- 12. Fiellin DA, Barry DT, Sullivan LE et al. (2013) A randomized trial of cognitive behavioral therapy in primary care-based buprenorphine. American Journal of Medicine 126:74-77.
- 13. Gates PJ, Norberg MM, Copeland J et al. (2012) Randomized controlled trial of a novel cannabis use intervention delivered by telephone. Addiction 107:2149-2158.
- 14. Zhong N, Yuan Y, Chen H et al. (2015) Effects of a Randomized Comprehensive Psychosocial Intervention Based on Cognitive Behavioral Therapy Theory and Motivational Interviewing Techniques for Community Rehabilitation of Patients With Opioid Use Disorders in Shanghai, China. Journal of addiction medicine 9:322-330.
- Hoch E, Buhringer G, Pixa A et al. (1-1-2014) CANDIS treatment program for cannabis use disorders: findings from a randomized multi-site translational trial. Drug & Alcohol Dependence 134:185-193.
- Hoch E, Noack R, Henker J et al. (2012) Efficacy of a targeted cognitive-behavioral treatment program for cannabis use disorders (CANDIS). European Neuropsychopharmacology 22:267-280
- 17. McKay JR, Van Horn D, Ivey M et al. (2013) Enhanced continuing care provided in parallel to intensive outpatient treatment does not improve outcomes for patients with cocaine dependence. [References]. Journal of Studies on Alcohol and Drugs 74:642-651.
- 18. Trujols J, Luquero E, Sinol N et al. (2007) Cognitive-behavioral therapy for the treatment of cocaine dependence. Actas Espanolas de Psiquiatria 35:190-198.
- 19. Johnson JE, Finney JW, and Moos RH. (2006) End-of-treatment outcomes in cognitive-behavioral treatment and 12-step substance use treatment progrmas: do they differ and do they predict 1-year outcomes? Journal of Substance Abuse Treatment 31:41-50.

- 20. Carroll KM, Nich C, Lapaglia DM et al. (2012) Combining cognitive behavioral therapy and contingency management to enhance their effects in treating cannabis dependence: less can be more, more or less. Addiction 107:1650-1659.
- 21. Ling W, Hillhouse M, Ang A et al. (2013) Comparison of behavioral treatment conditions in buprenorphine maintenance. Addiction 108:1788-1798.
- 22. Pan S, Jiang H, Du J et al. (2015) Efficacy of cognitive behavioral therapy on opiate use and retention in methadone maintenance treatment in China: A randomised trial. PloS one 10.
- Budney AJ, Moore BA, Rocha HL et al. (2006) Clinical trial of abstinence-based vouchers and cognitive-behavioral therapy for cannabis dependence. Journal of Consulting & Clinical Psychology 74:307-316.
- Garcia-Rodriguez O, Secades-Villa R, Higgins ST et al. (2009) Effects of Voucher-Based Intervention on Abstinence and Retention in an Outpatient Treatment for Cocaine Addiction: A Randomized Controlled Trial. Experimental and Clinical Psychopharmacology 17:131-138.
- 25. Carpenedo CM, Kirby KC, Dugosh KL et al. (2010) Extended voucher-based reinforcement therapy for long-term drug abstinence. American Journal of Health Behavior 34:776-787.
- 26. Schumacher JE, Milby JB, Wallace D et al. (2007) Meta-Analysis of Day Treatment and Contingency-Management Dismantling Research: Birmingham Homeless Cocaine Studies (1990-2006). Journal of Consulting and Clinical Psychology 75:823-828.
- 27. McKay JR, Lynch KG, Coviello D et al. (2010) Randomized Trial of Continuing Care Enhancements for Cocaine-Dependent Patients Following Initial Engagement. Journal of Consulting and Clinical Psychology 78:111-120.
- 28. Prendergast M, Podus D, Finney J et al. (2006) Contingency management for treatment of substance use disorders: a meta-analysis. [Review] [109 refs]. Addiction 101:1546-1560.
- 29. Kadden RM, Litt MD, Kabela-Cormier E et al. (2007) Abstinence rates following behavioral treatments for marijuana dependence. Addictive Behaviors 32:1220-1236.
- 30. Litt MD, Kadden RM, and Kabela-Cormier E Petry NM. (2008) Coping skills training and contingency management treatments for marijuana dependence: exploring mechanisms of behavior change. Addiction 103:638-648.
- 31. Olmstead TA and Petry NM. (2009) The cost-effectiveness of prize-based and voucher-based contingency management in a population of cocaine- or opioid-dependent outpatients. Drug and Alcohol Dependence 102:108-115.
- 32. Menza TW, Jameson DR, Hughes JP et al. (2010) Contingency management to reduce methamphetamine use and sexual risk among men who have sex with men: a randomized controlled trial. BMC Public Health 10:774.
- 33. Chen W, Hong Y, Zou X et al. (1-11-2013) Effectiveness of prize-based contingency management in a methadone maintenance program in China. Drug & Alcohol Dependence 133:270-274.
- 34. Roll JM, Chudzynski J, Cameron JM et al. (2013) Duration effects in contingency management treatment of methamphetamine disorders. Addictive Behaviors 38:2455-2462.
- Schottenfeld RS, Moore B, and Pantalon MV. (1-10-2011) Contingency management with community reinforcement approach or twelve-step facilitation drug counseling for cocaine dependent pregnant women or women with young children. Drug & Alcohol Dependence 118:48-55.
- Weaver T, Metrebian N, Hellier J et al. (12-7-2014) Use of contingency management incentives to improve completion of hepatitis B vaccination in people undergoing treatment for heroin dependence: a cluster randomised trial. Lancet 384:153-163.
- Rafia R, Dodd PJ, Brennan A et al. (18-3-2016) An economic evaluation of contingency management for completion of hepatitis B vaccination in those on treatment for opiate dependence. Addiction .
- Bickel WK, Marsch LA, Buchhalter AR et al. (2008) Computerized behavior therapy for opioiddependent outpatients: a randomized controlled trial. Experimental & Clinical Psychopharmacology 16:132-143.
- 39. Rooke S, Copeland J, Norberg M et al. (2013) Effectiveness of a self-guided web-based cannabis treatment program: randomized controlled trial. Journal of Medical Internet Research 15:e26.

- 40. Tait RJ, McKetin R, Kay-Lambkin F et al. (2015) Six-month outcomes of a Web-based intervention for users of amphetamine-type stimulants: randomized controlled trial. Journal of Medical Internet Research 17:e105.
- Christensen DR, Landes RD, Jackson L et al. (2014) Adding an Internet-delivered treatment to an efficacious treatment package for opioid dependence. Journal of Consulting & Clinical Psychology 82:964-972.
- 42. Marsch LA, Guarino H, Acosta M et al. (2014) Web-based behavioral treatment for substance use disorders as a partial replacement of standard methadone maintenance treatment. Journal of Substance Abuse Treatment 46:43-51.
- 43. Schaub MP, Wenger A, Berg O et al. (2015) A Web-Based Self-Help Intervention With and Without Chat Counseling to Reduce Cannabis Use in Problematic Cannabis Users: Three-Arm Randomized Controlled Trial. Journal of Medical Internet Research 17:e232.
- 44. Carroll KM, Kiluk BD, Nich C et al. (2014) Computer-assisted delivery of cognitive-behavioral therapy: efficacy and durability of CBT4CBT among cocaine-dependent individuals maintained on methadone. American Journal of Psychiatry 171:436-444.
- 45. Budney AJ, Fearer J, Stanger C et al. (2010) COMPUTERIZED MET/CBT FOR THE TREATMENT OF CANNABIS ABUSE AND DEPENDENCE. Proceedings of the 72th Annual Scientific Meeting of the College on Problems of Drug Dependence; 2010 June 12-17; Scottsdale, Arizona.USA 20.
- McKee SA, Carroll KM, Sinha R et al. (2007) Enhancing brief cognitive-behavioral therapy with motivational enhancement techniques in cocaine users. [References]. Drug and Alcohol Dependence 91:97-101.
- 47. Donlin WD, Knealing TW, Needham M et al. (2008) Attendance rates in a workplace predict subsequent outcome of employment based reinforcement of cocaine abstinence in methadone patients. Journal of Applied Behavior Analysis 41:499-516.
- 48. Defulio A and Silverman K. (2011) Employment-based abstinence reinforcement as a maintenance intervention for the treatment of cocaine dependence: post-intervention outcomes. Addiction 106:960-967.
- 49. Defulio A, Everly JJ, Leoutsakos JM et al. (1-1-2012) Employment-based reinforcement of adherence to an FDA approved extended release formulation of naltrexone in opioid-dependent adults: a randomized controlled trial. Drug & Alcohol Dependence 120:48-54.
- Ghitza UE, Epstein DH, Schmittner J et al. (2007) Randomized trial of prize-based reinforcement density for simultaneous abstinence from cocaine and heroin. Journal of Consulting & Clinical Psychology 75:765-774.
- 51. Ghitza UE, Epstein DH, Schmittner J et al. (2008) Effect of reinforcement probability and prize size on cocaine and heroin abstinence in prize based contingency management. Journal of Applied Behavior Analysis 41:539-549.
- 52. Preston KL, Ghitza UE, Schmittner JP et al. (2008) Randomized trial comparing two treatment strategies using prize-based reinforcement of abstinence in cocaine and opiate users. Journal of Applied Behavior Analysis 41:551-563.
- 53. Kelly JF, Dow SJ, Yeterian JD et al. (2010) Can 12-step group participation strengthen and extend the benefits of adolescent addiction treatment? A prospective analysis. Drug & Alcohol Dependence 110:117-125.
- 54. Laudet AB, Morgen K, and White WL. (2006) The role of social supports, spirituality, religiousness, life meaning and affiliation with 12-step fellowships in quality of life satisfaction among individuals in recovery from alcohol and drug problems. Alcoholism Treatment Quarterly 24:33-73.
- 55. McKellar JD, Harris AH, and Moos RH. (2009) Patients' abstinence status affects the benefits of 12-step self-help group participation on substance use disorder outcomes. Drug & Alcohol Dependence 99:115-122.
- 56. Timko C. (2007) A randomized controlled trial of intensive referral to 12-step self-help groups: one-year outcomes. Drug and Alcohol Dependence 90:270-279.
- 57. Amato L, Minozzi S, Davoli M et al. (2008) Psychosocial and pharmacological treatments versus pharmacological treatments for opioid detoxification. Cochrane Database of Systematic Reviews
- 58. Amato L, Minozzi S, Davoli M et al. (2008) Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence.

- [Review] [89 refs][Update of Cochrane Database Syst Rev. 2004;(4):CD004147; PMID: 15495081]. Cochrane Database of Systematic Reviews CD004147.
- 59. Copenhaver MM, Bruce RD, and Altice FL. (2007) Behavioral counseling content for optimizing the use of buprenorphine for treatment of opioid dependence in community-based settings: a review of the empirical evidence. [Review] [36 refs]. American Journal of Drug & Alcohol Abuse 33:643-654.
- 60. Amato L, Minozzi S, Davoli M et al. (2011) Psychosocial and pharmacological treatments versus pharmacological treatments for opioid detoxification. Cochrane Database of Systematic Reviews
- 61. Amato L, Minozzi S, Davoli M et al. (2011) Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. Cochrane Database of Systematic Reviews.
- 62. Banerjee K, Howard M, Mansheim K et al. (2007) Comparison of Health Realization and 12-Step treatment in women's residential substance abuse treatment programs. American Journal of Drug & Alcohol Abuse 33:207-215.
- 63. Tuten M, Defulio A, Jones HE et al. (2012) Abstinence-contingent recovery housing and reinforcement-based treatment following opioid detoxification. Addiction 107:973-982.
- 64. Abbott PJ. (2009) A review of the community reinforcement approach in the treatment of opioid dependence. [Review] [34 refs]. Journal of Psychoactive Drugs 41:379-385.

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