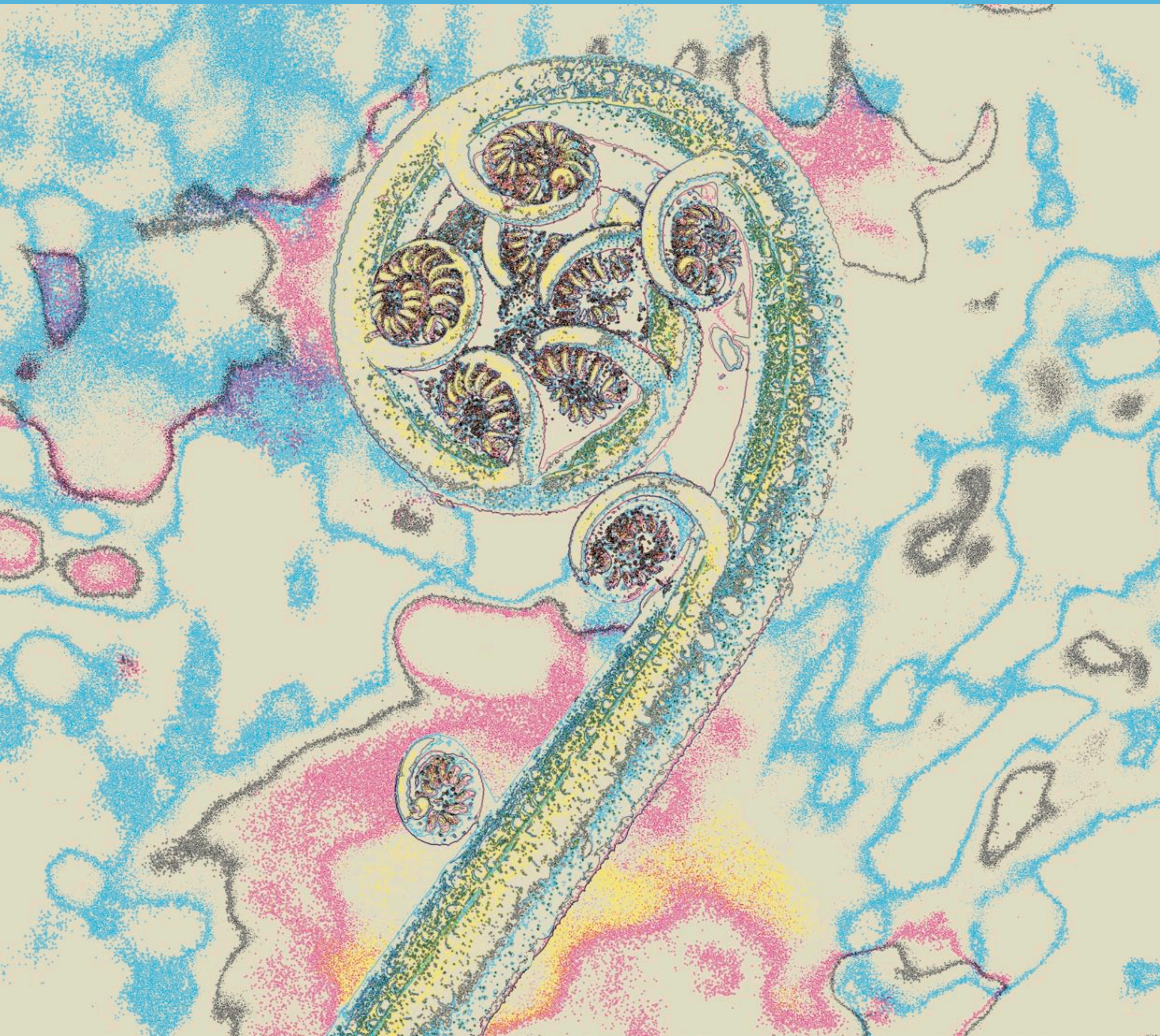
Matua Raki
National Addiction Workforce Development

Interventions and Treatment for Problematic Use of Methamphetamine and Other Amphetamine-Type Stimulants (ATS)



Interventions and Treatment for Problematic Use of Methamphetamine and Other Amphetamine-Type Stimulants (ATS)

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Disclaimer

The opinions expressed herein are the views of the authors and do not necessarily reflect the official position of the Ministry of Health.

The guidelines in this document should not be considered exhaustive, exclusive or substitutes for individualised care and treatment decisions.

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Glossary

Addiction

The word addiction is used to preface specialist alcohol and other drug services, workers, practitioners and clinicians dealing with moderate to severe problematic methamphetamine and ATS use.

Amphetamine Type Stimulants (ATS)

Amphetamine-type stimulants (ATS) are a group of substances consisting of synthetic or man made stimulants including amphetamine, dexamphetamine, methamphetamine, methcathinone, methylphenidate (Ritalin), methylenedioxymethamphetamine (MDMA or ecstasy-type substances), methylenedioxyamphetamine (MDA), piperazines (BZP, TFMPP etc), methylmethcathinone (mephedrone) and numerous other substances chemically related to amphetamine.

Throughout this manual the inclusive term amphetamine-type stimulants, abbreviated to ATS, is used unless the information relates to a specific substance. Where the information is specific to methamphetamine this will be indicated.

Co-existing problems (CEP)

Co-existing problems describes the presence of substance use and mental health problems in the same person at the same time.

DSM IV and V

DSM IV refers to the Diagnostic and Statistical Manual of Mental Disorders prepared by the American Psychiatric Association to provide a consistent framework to describe and diagnose psychiatric problems. DSM V is currently under development and is due for publication in 2012.

Family and whānau

Family and whānau has been used throughout the document to incorporate western concepts of family with the wider extended relationships inherent in the Māori concept of whānau.

Green prescription

Written advice to increase activity levels in form of a prescription provided by a general practitioner. Some activities with a cost can be subsidised for a period of time.

People who use methamphetamine and amphetamine-type stimulants (ATS)

Throughout this document the term 'people who use methamphetamine and amphetamine-type stimulants' has been used to refer to clients, patients, consumers, service users and tangata whaiora.

Problematic use

Problematic use has been used as a term to cover the spectrum of problems that are caused or exacerbated by substance use. The term includes those people who meet the DSM IV criteria for abuse, dependence, and the proposed DSM V criteria for substance-use disorders. It also includes those people who are having significant social, physical and mental health problems related to their substance use but who may not technically meet diagnostic criteria.

SSRI

Selective Serotonin Re-uptake Inhibitors are a category of anti-depressant medication widely used to treat depression and anxiety.

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Introduction

These guidelines have been developed for use across a wide range of settings for those working with people who are adversely affected by methamphetamine use. They aim to address the consequences of methamphetamine use and are part of a wide range of innovative health sector responses. They will be an important and useful resource for frontline workers, including those in Mental Health Services, the Police, Department of Corrections, Emergency Departments, general practitioners, primary health care workers and the specialist addiction treatment sector of New Zealand. These guidelines have been developed drawing on a range of similar material from Australia and the United States as well as current research.

The guidelines will provide practical information and potential management and treatment options that can be used in a variety of settings and contexts, including primary care.

There are undoubtedly many working effectively using intervention and treatment strategies that are not covered in these guidelines. The strategies described within this document have been provided to enhance treatment not replace existing quality treatment. Aspects of all of the treatment options discussed can be adapted for use depending on service resources and the needs of people using methamphetamine and amphetamine-type stimulants (ATS).

Workforce development is integral to supporting changes in practice through education, training, mentoring, staff supervision and management.

Background

Throughout the world there are at least as many people who use synthetic substances, which includes ATS such as methamphetamine and ecstasy, as there are people who use heroin or cocaine. There are some suggestions that there are possibly as many people who use ATS as use both heroin and cocaine combined. Since 1990 ATS have been discovered manufactured in more than 60 countries and new places of manufacture are reported each year. With information about cheap and easy ways to manufacture substances readily available on-line, new varieties of ATS are constantly evolving and appearing each year (UNODC 2009).

The United Nations Office on Drug Control (UNODC) estimated that between 16 and 51 million people aged 15–64 used amphetamines-type substances, excluding ecstasy, at least once in 2007. The number who used ecstasy at least once was estimated at between 12 and 24 million worldwide. It was estimated that methamphetamine use accounted for between 54% and 59% of all amphetamine-type stimulant use (UNODC 2009).

The recent Drug Use in New Zealand survey (Ministry of Health 2010) indicted that, 'The prevalence of having used amphetamines in the past year (2007/8) was 2.1% among the total population aged 16–64 years, which equates to about 54,900 people in New Zealand'.

Reviewing research about the consequences of ATS use Smout (2008) wrote: 'Of the amphetamines, methamphetamine is the most potent and carries a higher risk of dependence and mental health problems.' Summarising outcome research he observed that methamphetamine use was associated with higher rates of psychosis, depression, cognitive problems, risky sexual practices, medical problems and violence.

Purpose of these guidelines

These guidelines have been developed for use in a range of settings to enhance knowledge about, and the care of, people who have been using ATS, particularly methamphetamine. The guidelines provide practical advice for frontline workers in the community, primary health care workers and specialist addiction practitioners, highlighting the unique impact of ATS on functioning and what this can mean for the specific treatment needs of this group of people.

Treatment Needs

Despite having an estimate of the prevalence of methamphetamine and ATS use in New Zealand there is no reliable way to estimate the potential number of people in New Zealand using methamphetamine or ATS problematically. As one possible indicator of the risk of progression to problematic ATS use a recent Substance Abuse and Mental Health Services Administration (SAMSHA 2008) National Survey of Drug Use and Health found that of the people who had used ATS for the first time two years previously, 4.7 percent were dependent on ATS at the time of the survey.

Many New Zealand addiction services report that they are not seeing large numbers of people using methamphetamine and ATS problematically. For example the proportion of people receiving a methamphetamine or stimulant-use disorder diagnosis at Community Alcohol and Drug Services in Auckland has steadily decreased from a high of seventeen percent in 2005, to between nine and ten percent in 2008 and 2009 (Gulbransen 2009).

In 2009 the Alcohol Drug Helpline reported that, in the three months of October to December 2009, they received 377 telephone calls from people concerned about their own or a family or a whānau member's methamphetamine use. Three out of every five calls to the Helpline from someone concerned about methamphetamine use were from family or whānau members rather than the person using methamphetamine (Alcohol Drug Helpline Quarterly Report October 01 – 31 December 2009).

Many of the people who called the Helpline because of their own methamphetamine use stated that they chose to call the Helpline rather than contact treatment services because they had little faith that the workforce would know what they were talking about and know what their specific needs were (personal communication, Clinical Director, Alcohol Drug Helpline).

The above figures and observations reflect the experience of addiction services in many countries of treatment seeking by people who use methamphetamine and ATS. For example, it was estimated that only between 6 to 11 percent of people who used methamphetamine problematically in Australia in 2003 sought out treatment (Ritter et al 2003, quoted in Lee et al 2007).

The challenge for the addiction treatment sector is to acknowledge that strategies employed to recruit and engage people who use substances other than ATS into treatment may not be as effective for people who use methamphetamine and other ATS.

Basic Pharmacology of Methamphetamine and Amphetamine-type Stimulants

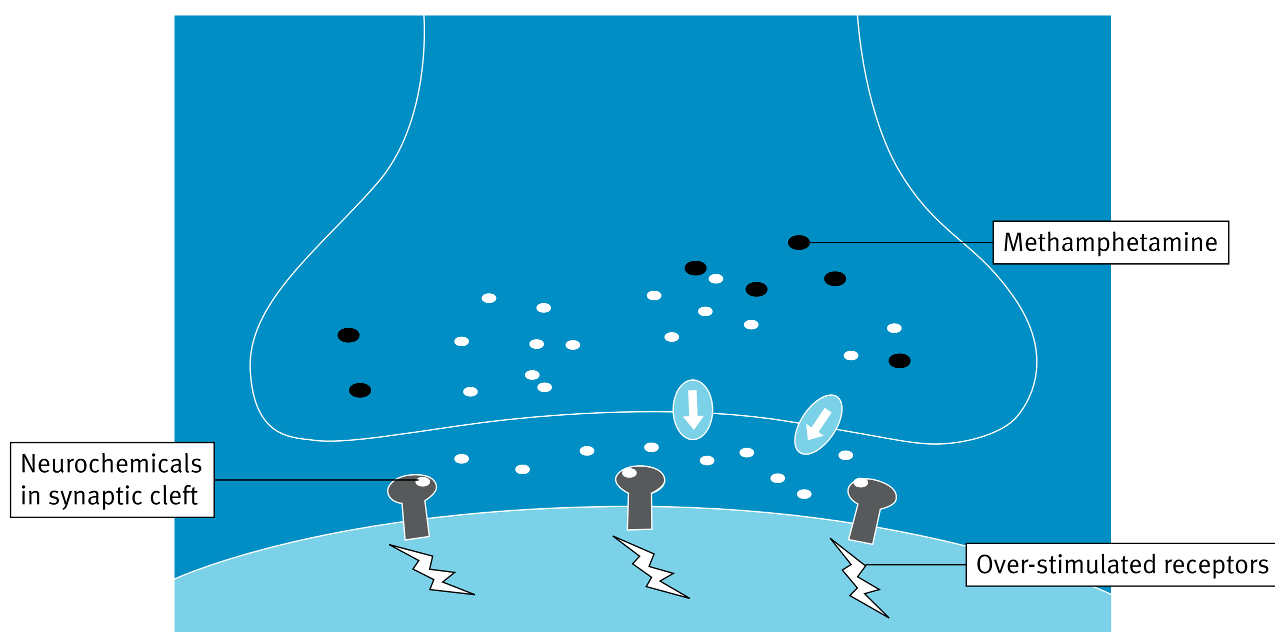
ATS (including methamphetamine) are central nervous system stimulants that effect neurochemical mechanisms responsible for regulating heart rate, body temperature, blood pressure, appetite, attention, mood and responses associated with alertness or alarm conditions. Chemically the structures of ATS appear to be similar to the neurotransmitters dopamine, noradrenaline and serotonin, acting by promoting their release from nerve terminals and blocking their re-uptake (Drug and Alcohol Office 2006).

The acute physical effects of ATS closely resemble the physiological and psychological effects of a **fight-or-flight** response to a perceived threat. This includes increased heart rate and blood pressure, vasoconstriction (narrowing blood vessels), bronchodilation (opening airways), and hyperglycaemia (increased blood sugar). As a consequence most people who use methamphetamine and ATS tend to experience increased focus, increased alertness, no tiredness and decreased appetite.

Chemically the methyl group, the 'meth' in methamphetamine, is responsible for it being stronger than amphetamine, that is, less is needed for similar effects. Increased lipid-solubility makes it easier for methamphetamine to cross the blood-brain barrier. Methamphetamine is more stable and resistant to enzymatic degradation by the enzyme monoamine oxidase so it stays active for longer. Methamphetamine also indirectly prevents the reuptake of neurotransmitters, causing them to remain in the synaptic cleft for a prolonged period (Scott et al 2007).

Short-term tolerance can be caused by the depletion of the neurotransmitters within the synaptic vesicles and typically lasts until neurotransmitter levels are replenished, which can be more than 2–3 days. During this time, more and more methamphetamine is needed to get the same intensity of effects. Sensitisation to effects can also occur but how this happens is not well understood.

Figure 1: Methamphetamine overstimulation of neurotransmitters



Based on Cruickshank and Dyer 2006.

Prolonged stimulation of dopamine receptors by methamphetamine may eventually cause the receptors to become less responsive to compensate for increased levels of dopamine within the synaptic cleft.

Following repeated use of methamphetamine, and possibly some other ATS, these neurological changes may remain even after people stop using for long periods of time (Berman et al 2008). This is called neurotoxicity.

While studies on possible long-term neurotoxic effects of methamphetamine and MDMA (ecstasy) use have been relatively scarce, evidence is emerging that for some people alterations of the dopaminergic system may persist for years after stopping use of methamphetamine and possibly MDMA (ecstasy) (Scott et al 2007; Berman et al 2008).

Brain imaging studies comparing people who do not use ATS to people who use methamphetamine and other ATS regularly, have demonstrated varying degrees of difference in the activity of the dopamine system of individuals who use ATS. The observed alterations appear to be associated with reduced motor speed and impaired verbal learning. Other studies have also revealed some 'structural alterations' in areas of the brain associated with emotion as well as memory (Scott et al 2007; Berman et al 2008).

Caution must be used when considering results from brain imaging studies however. The complexity of carrying out brain imaging makes it difficult to determine conclusively that brain cells are damaged or destroyed by methamphetamine and ATS use. To date imaging results from before and after use have been rarely available for comparison (Berman et al 2008).

Despite this caution, the observed alterations in the dopaminergic system may help account for many of the long-term emotional and cognitive problems observed in people who have used methamphetamine regularly in the past (Scott et al 2007).

Potential risks associated with methamphetamine and ATS use

Physical risks

- Hyperthermia – overheating
- Dental decay
- Teeth grinding
- Weight loss
- Skin picking
- Potential fetal effects if used when pregnant
- Seizures
- Ventricular arrhythmias – too fast, too slow or irregular heart beats
- Acute myocardial infarction – heart attack
- Cardiomyopathies – where the heart muscle is damaged
- Stroke – sudden loss of brain function due to blood supply problems
- Aneurysm – weakened blood vessels that bulge with blood and can rupture
- Cerebral haemorrhage – bleeding inside the brain

Injecting related risks:

- Blood borne diseases – HCV, HIV
- Abscesses
- Vascular damage – damage to blood vessels
- Thrombosis – a blood clot in a blood vessel
- Cellulitis – infection of skin and flesh
- Endocarditis – inflamed heart valves
- Higher risk of dependence

Smoking related risks

- Throat soreness
- Hoarseness
- Productive cough

Mental health risks

- Confusion
- Paranoia
- Hostility
- Aggression
- Depression
- Anxiety
- Tactile hallucinations, eg, feeling insects crawling under the skin
- Psychosis

Social risks

- Financial problems
- Employment
- Risky and unsafe sexual behaviour due to increased libido
- Impulsive behaviour
- Criminal behaviour
- Victim of violence
- Relationship problems
- Family and whānau breakdown
- Impaired driving.

The likelihood of having negative outcomes increases with frequency of methamphetamine and ATS use and amounts used per occasion.

More frequent use increases the risk of becoming dependent on methamphetamine and ATS.

With dependence comes the possibility of withdrawal effects during breaks from use or cessation of use.

Because of the higher potency of methamphetamine the potential risks associated with use are greater that other ATS.

Managing Methamphetamine and Amphetamine-Type Stimulants Intoxication

This section of the guidelines is designed to be applicable to a wide range of settings where frontline workers are likely to come into contact with people who use ATS. These include: Police, Corrections, Child Youth and Family Service, emergency departments, mental health settings, Community Assessment Teams and primary healthcare settings.

Responses to the reported use of illicit substances should be guided by the internal policies and procedures of the organisation. The suggestions below are based on pragmatic considerations rather than statutory expectations and requirements.

Intoxication

Acute intoxication with methamphetamine and ATS is associated with:

- euphoria
- large, dilated, pupils
- tight jaw, teeth grinding or achy mouth sensitive to cold
- heavy sweating
- talkativeness, jumping from one thing to another
- wakefulness
- increased stamina
- improved concentration and alertness
- feeling great
- increased libido.

Following higher doses and more regular use these symptoms can also appear:

- confusion and ringing in the ears
- impaired memory and co-ordination
- severe shaking
- repetitive movements, clumsiness and poor balance
- skin or spot picking
- anxiety, pacing and agitation
- suspiciousness
- irritability, aggressiveness, hostility and violence
- hallucinations

- paranoia
- psychosis.

Managing intoxication is usually simply a matter of providing a safe environment and waiting for the person to return to a more settled state of mind and behaviour. Keeping the environment quiet and calm will be helpful. Some people who use ATS can find the physical consequences of use, such as agitation, racing heart and the inability to sleep, quite distressing and may require reassurance that the effects will pass.

Managing challenging behaviour

The small group of people who use methamphetamine, and some other ATS, and then go on to become irritable and aggressive can be problematic to manage. When in contact with people who you know or suspect use methamphetamine or a similar ATS, and who have become irritable or aggressive, it is important to remember that there is a good chance that their judgement and perception is likely to be impaired. Do not assume that they will understand your words or actions as you intend them to be understood. When you observe a level of irritability that you consider to be extreme for the situation, then it is possible that the person has been using methamphetamine regularly, or is in withdrawal from methamphetamine.

When dealing with people in this situation:

- speak to them in a steady quiet manner
- listen to them carefully and ask for clarification if you need it
- avoid humour and jokes
- explain what you are doing, and why, in short simple statements
- avoid rapid movements or sudden moves towards the person
- take nothing personally
- don't expect to be able to engage the person in an assessment or counselling
- where a suitable place is available keep people in a low stimulus environment
- make sure that you can leave the environment quickly
- advise colleagues of potential risks
- consider the use of sedative and or anti-psychotic medication if you have access to a doctor
- if not already in a secure environment contact the Police if the situation escalates.

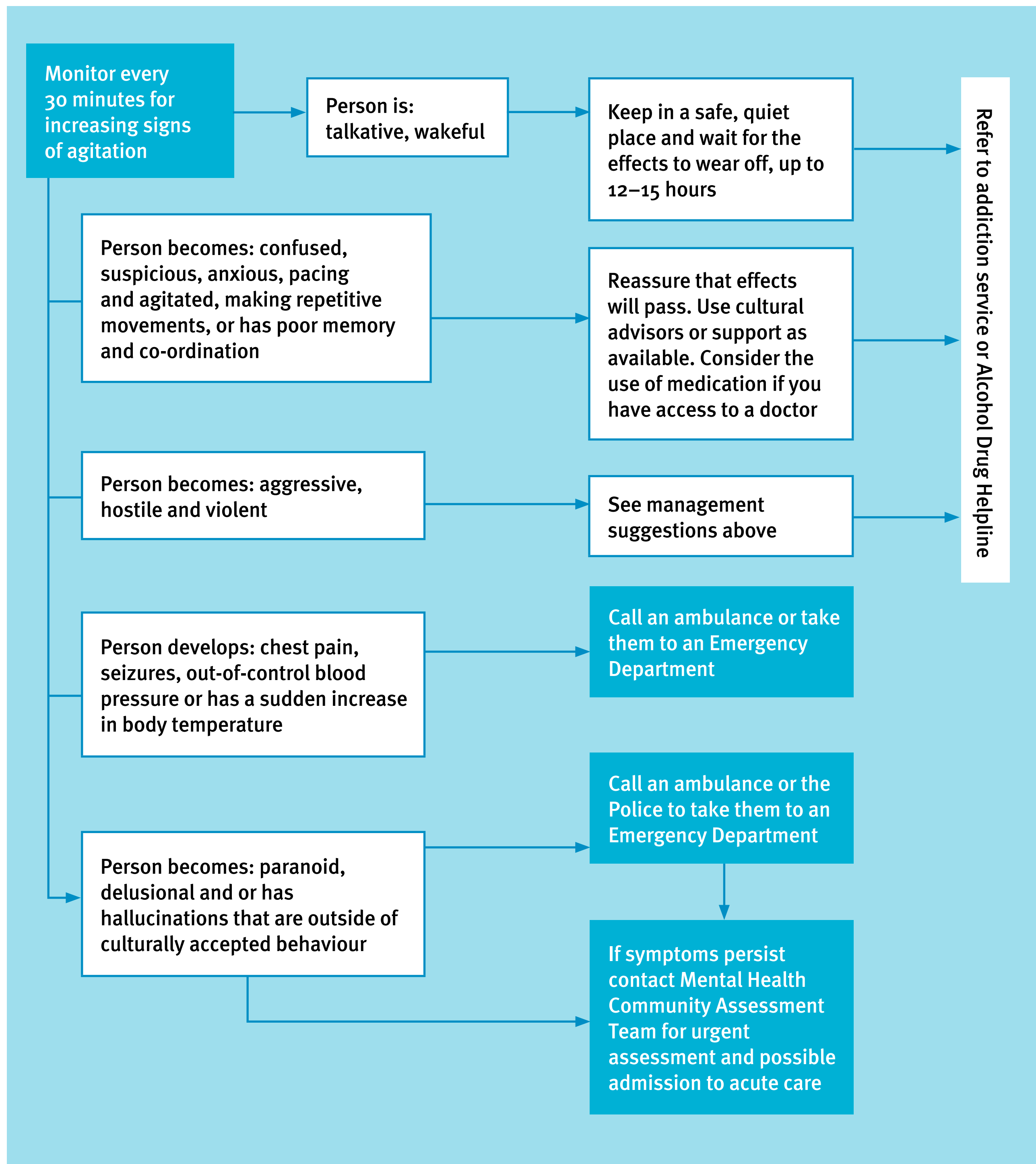
If the person develops chest pain, has seizures, has a sudden increase in body temperature, has high blood pressure or, less commonly, low blood pressure then urgent medical attention is necessary.

Where it is apparent that the person's contact with 'reality' is impaired, and this is not a desired drug effect, it is possible that the person has become psychotic. Evidence of psychosis, such as hallucinations, extreme paranoia or delusions, indicates a need for a mental health assessment. Assessment is still relevant to safety. However, caution should be exercised when dealing with a culture not of one's own as cultural/spiritual beliefs may be a confounding factor. Some acute mental health services may not assess people who are acutely intoxicated. However if symptoms persist arrange for the person to be taken, by ambulance or by the Police if agitated, to an Emergency Department for assessment.

When the person appears to be no longer acutely intoxicated, feedback to them your perception of their behaviour, the risks of continuing ATS use and discuss with them the possibility of seeking assistance about their ATS use.

If the person is open to referral contact an addiction service directly and establish a time for them to be assessed. If the person is not open to referral to a treatment service give them contact details for the Alcohol Drug Helpline (0800 787 797) in case they change their minds at a later date. Providing written material such as the worksheets and self guided withdrawal booklet from the appendices could encourage people to consider behavioural change.

Figure 2: Management of acute amphetamine-type stimulant intoxication in a community setting



Treatment for Problematic Use of Methamphetamine and Amphetamine-Type Stimulants

Introduction

Research into treatment for problematic methamphetamine and ATS use has yet to find a suitable pharmacotherapeutic agent to use to assist with withdrawal, craving or blockade (Shoptaw et al 2009). There is ongoing research into substitution treatment, including in New Zealand, and the use of agonist therapy, using dexamphetamine or methylphenidate (Elkashef et al 2008). To date this appears to have been limited to severely addicted people with the primary goal of harm reduction, neurochemical normalisation and retention in treatment.

Based on a review of the current treatment research literature, the treatment strategies that appear to be most effective with people who use methamphetamine and ATS problematically are psychosocial therapies. These include Motivational Interviewing (MI) and Enhancement, Cognitive Behavioural Therapy (CBT), Contingency Management (Lee and Rawson 2008), and the Matrix Model of treatment (Rawson et al 2004). Contingency Management and the Matrix Model appear to be particularly effective in engaging and retaining people in treatment with reduced methamphetamine or ATS use but have no advantage over Cognitive Behavioural Therapy in terms of outcomes following treatment (Lee and Rawson 2008; Rawson et al 2004).

A stepped care approach is recommended to provide appropriate interventions for people who use methamphetamine and ATS problematically. Stepped care means providing the most effective low intensity intervention initially, progressing through a range of options using more intensive interventions as the need becomes evident or interventions are ineffective. **Withdrawal management can be carried out separately or integrated with psychosocial interventions.**

Managing methamphetamine and amphetamine-type stimulant withdrawal

ATS withdrawal symptoms occur along a spectrum of severity that is dependent on how much a person has been using, how long they have been using and how they have been using, with smoking and intravenous use associated with greater severity. Personality differences and pre-existing conditions can impact on the severity of withdrawal.

Generally withdrawal is not life threatening or physically risky.

After stopping use many people who use methamphetamine, and ATS, **'crash'**, sleeping long hours and feeling fatigued and restless when awake. The 'crash' can last for up to three days. Providing a quiet, safe and calm environment during this time can assist the person to recover. If their home environment is not suitable referral to a community social detoxification facility is recommended.

Following the 'crash' withdrawal begins.

Symptoms can include:

- low mood through to significant depression
- mood swings and tearfulness
- diarrhoea
- inability to enjoy life
- lethargy, tiredness and low energy levels
- irritability, reactivity or anger
- anxiety
- agitation
- aches and pains
- disturbed sleep patterns through to insomnia
- poor concentration and memory
- cravings for ATS
- paranoid thoughts and behaviours
- psychosis.

Many of these symptoms are similar to the effects of acute intoxication and can be managed, as with intoxication, with reassurance and support. However, workers need to feel confident when dealing with people in more serious acute withdrawal.

Knowledge and training about the withdrawal process and how to manage withdrawal and potential risks can contribute to improved safety and outcomes for the person in withdrawal, their family and whānau, the worker and the service. If workers feel out of their depth, and are not confident that they can manage the situation, then they are better to call in a more experienced or senior colleague.

When people appear irritable and agitated, workers need to:

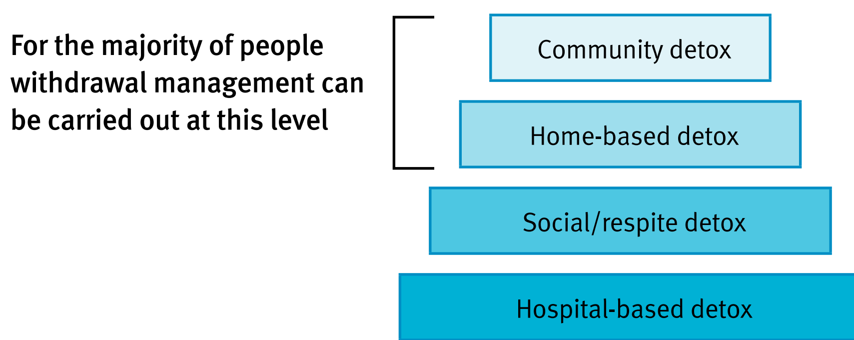
- establish one specific worker to communicate with the person
- approach the person slowly with an open posture, keeping their arms at their sides with visible and open hands
- always approach from the front or the side to avoid startling the person
- use the person's name if known and introduce themselves
- see the person with another worker if they have a known history of aggression and violence
- pay attention to the level of eye contact maintained with the person – too much can be threatening and too little can seem uncaring
- to give the person a lot of personal body space as they may be threatened by physical proximity
- mirror body language actively – stand and walk with the person or sit with them to stay on the same level to avoid appearing threatening or vulnerable
- know when to walk away and call for help.

Services that routinely deal with people who are likely to be intoxicated or in withdrawal may want to establish protocols and strategies to reduce risks to staff and other people when working with the small number of people who use methamphetamine and who are potentially volatile.

Consider:

- setting up a quiet safe room that is not cluttered, busy or over stimulating, near the building's exit
- reducing the potential for objects in the environment to be used as weapons
- having an established procedure, which will not escalate the risk, that workers can use to alert colleagues if the situation they are in has become unsafe
- having personal/duress alarms available
- establishing formal arrangements with local acute mental health services and police to improve responsiveness in crises.

Figure 3: Stepped care for managing methamphetamine and ATS withdrawal



Community/home-based, social and residential and hospital detoxification services

While the majority of people can successfully manage their own ATS withdrawal symptoms in the community with no external support, or with support from a general practitioner, some people will have the need for greater support when going through withdrawal.

Many addiction services offer a community-based home detoxification service. This involves specialist addiction nursing staff visiting people in their own home during the acute withdrawal period to provide supervision, encouragement, support and medication as needed.

Social or respite detoxification services are located in the main centres and provide a safe, supervised environment away from community and peer influences. Staff members are available for support and encouragement 24-hours a day. Specialist nursing and medical staff members are available on call for consultation.

Hospital-based detoxification is appropriate for people with severe problematic methamphetamine and ATS use and or complicating factors. This includes co-existing mental health problems, other substance use, physical health problems or risks to the individual or community.

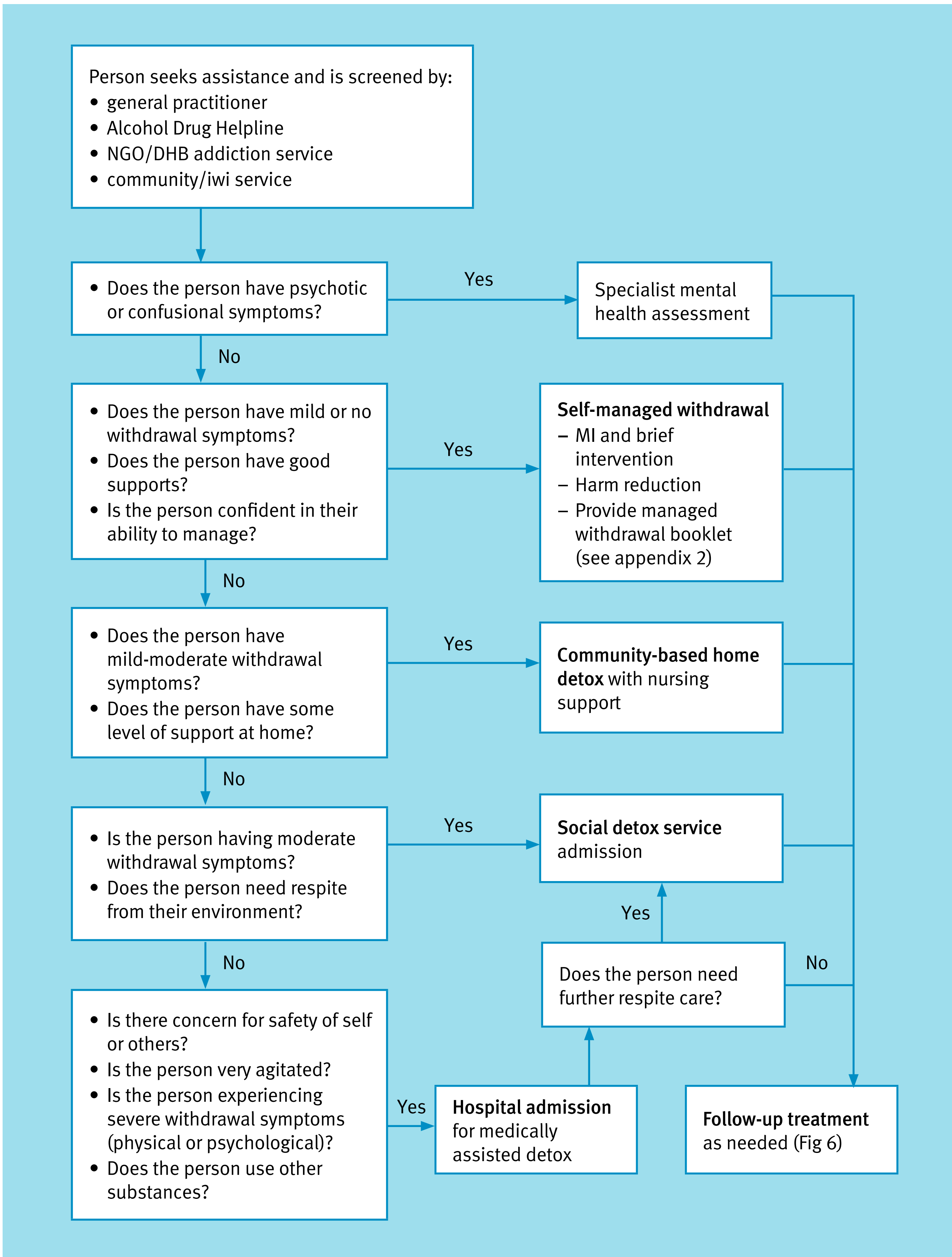
To improve the chances of a successful withdrawal, services supporting people in ATS withdrawal can:

- remain aware that people in withdrawal can be impulsive and irritable and can have extreme mood swings
- avoid panicking or reacting in a challenging manner
- assume the person has cognitive problems and repeat information as often as needed
- keep partners, family and whānau informed of the withdrawal process and what to expect
- address health issues such as skin infections, lung and dental problems, that could be causing pain
- monitor mood states and suicidal ideation closely
- involve mental health services if anxiety, depression or psychosis, emerge as problems post detoxification
- provide dietary advice about the need for sustained healthy eating and multivitamin use following probable poor nutrition while using methamphetamine or other ATS.

Social detoxification services and inpatient detoxification services can, in addition:

- provide people with enough space to move around freely
- provide people with access to a range of activities to help with relaxation, exercising and distraction in general
- be alert for conflict between residents and defuse as quickly as possible
- have kaumātua and matua available to support people and advise on appropriate cares
- limit as far as possible noise and environmental stressors, such as vacuum cleaners, radios and televisions
- encourage people to freely use their beds at any time of the day or night so they can ‘crash’ at any time, especially during the first few days
- provide a wide range of healthy food that can be consumed at need, especially over the first few days.

Figure 4: Stepped care pathways for management of methamphetamine and amphetamine-type stimulant withdrawal



The use of medication in withdrawal

A Cochrane review (Shoptaw et al 2009) of research into 'Treatment for amphetamine withdrawal' concluded 'No medication is effective for treatment of amphetamine withdrawal'.

Despite this there can be a place for the use of benzodiazepines, such as Diazepam, Clonazepam and Temazepam, to help manage anxiety and sleep disturbances in the week or two after the initial 'crash' (Kenny et al 2009). The people for whom this would be appropriate are those who are extremely agitated and or distressed.

A brief period of prescribed benzodiazepines can also serve to indicate to people with 'methamphetamine-use disorders' that their problems are being taken seriously. Research (Kelly et al 2005) indicates that the majority of people who use methamphetamine tend not to access treatment services and providing appropriate medication at the right time can demonstrate acceptance of their need for an intervention that is substance specific. As the use of benzodiazepines for periods of longer than two weeks is associated with the rapid development of tolerance there is the potential for people to become physically dependent very quickly. For this reason benzodiazepines should be used with caution when treating people with a known history of a substance-use disorder.

Antidepressant medication may also be helpful in combating the depressive symptoms frequently seen in methamphetamine withdrawal, although most antidepressants are not effective for several weeks, diminishing their utility for treating an acute depressive response. Some care also needs to be taken prescribing SSRI's to people who use methamphetamine in case they have elevated serotonin levels, raising the risk of serotonin syndrome (Jenner and Lee 2008).

Short-term use of antipsychotic medications has been reported to successfully manage psychoses that occur in intoxication and withdrawal. Of the antipsychotic medications that have been adequately researched, Olanzepine has been shown to be better tolerated than Haloperidol but both medications have been shown to be helpful in managing psychotic symptoms (Shoptaw et al 2009).

Rongoā Māori

A number of Māori undertaking withdrawal and detoxification might utilise complementary therapies such as mirimiri, rongoā and karakia. Most often, people who use complementary therapies are seeking ways to improve health and wellbeing, to relieve distress and side effects. These techniques might offer frameworks of health and wellbeing that help engagement in the process, so having resources available to offer a whānau or family is important. On the other hand, it might be important to be supportive of those wishing to utilise these elements.

The use of traditional healing and healers has the potential to both enhance and develop treatments for problematic use of methamphetamine and ATS, that are unique to Aotearoa New Zealand.

'Traditional healers incorporate the spiritual dimension in assessment and therapy and do so in a culturally relevant way.' (http://www.maorihealth.govt.nz/moh.nsg/pagesma/194)

'…the integration of rongoā within publicly funded health services is a significant step, enabling Māori clients/consumers wider health service delivery choice, and culturally appropriate care that is consistent with Māori values and worldviews and nurtures cultural identity (Jones 2000a). This has the potential to improve Māori access to health care, reducing barriers associated with expense and appropriateness/ appeal' (Jones 2000b) as cited in Ahuriri-Driscoll et al 2008.

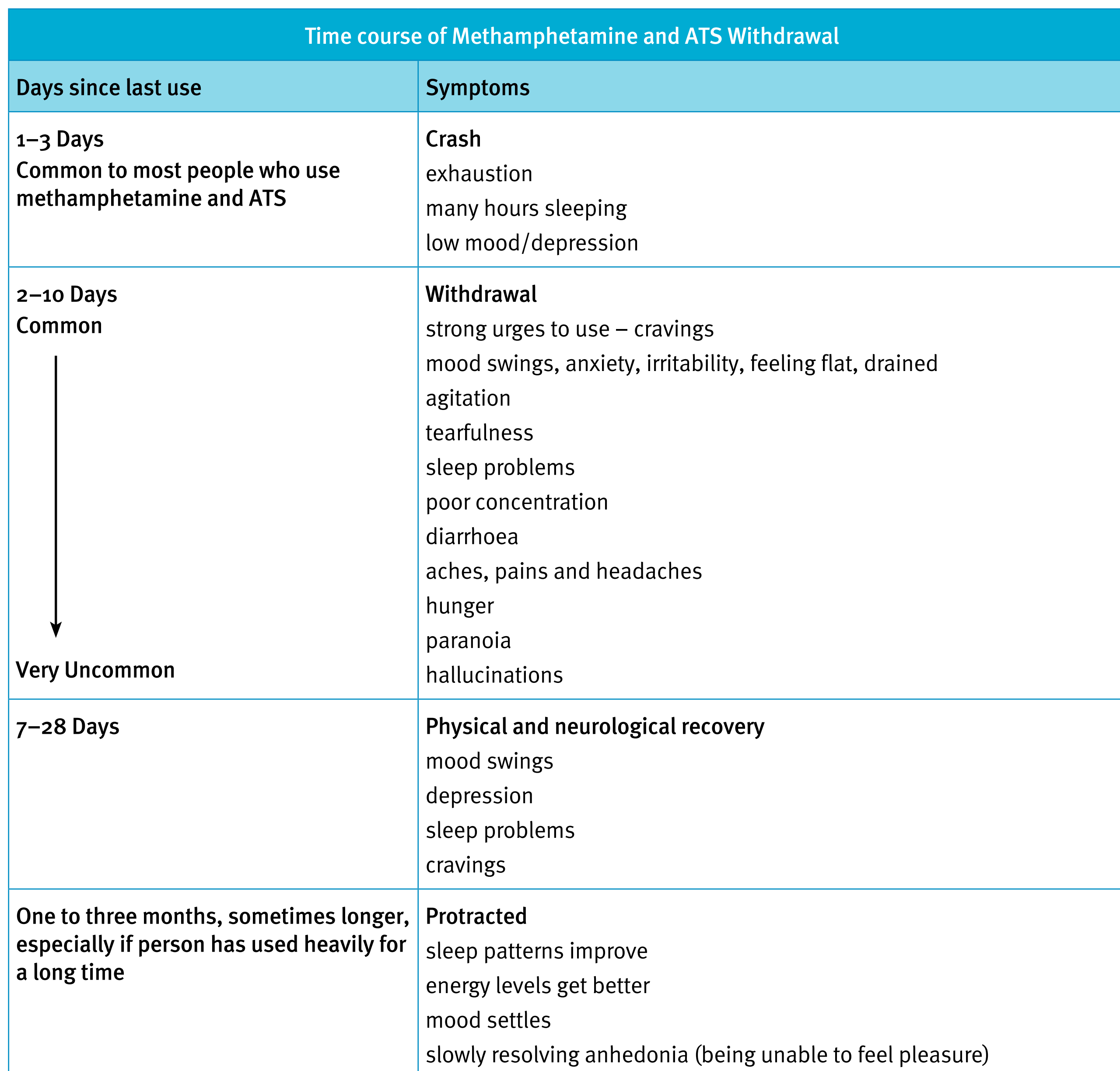
Rongoā Māori has been described as a holistic range of approaches to health and well being that includes 'ritenga and karakia (incantations and rituals involved with healing), rongoā (physical remedies derived from trees, leaves, berries, fruits, bark and moss), mirimiri (similar to massage/physiotherapy), wai (use of water to heal), and surgical interventions.' (Durie et al 1993, cited in Ahuriri-Driscoll et al 2008).

Ngā Ringa Whakahaere o te Māori is a network of 'traditional practitioners' and the organisation maintains a database of rongoā Māori providers. The organisation is developing an online record of providers; see http://www.nrw.co.nz/ for more information on the network. Rongoā providers are, however, not available in many areas.

At the time of the publication of *Rongoā Maori Wellbeing and Sustainability* (Ahuriri-Driscoll et al 2008), the Ministry of Health was funding 16 rongoā providers. More information about rongoā is available through the Ministry of Health: http://www.maorihealth.govt.nz

For people interested in finding out more about traditional healing practices, training in rongoā Māori is available from Te Kopere o Raehina. Areas covered include romiromi (deep tissue massage), mirimiri (light massage), ngā rongoā (herbal medicines), honohono (spiritual energy healing) and counselling. Email koperetu@ihug.co.nz

Figure 5: Time course of methamphetamine and ATS withdrawal

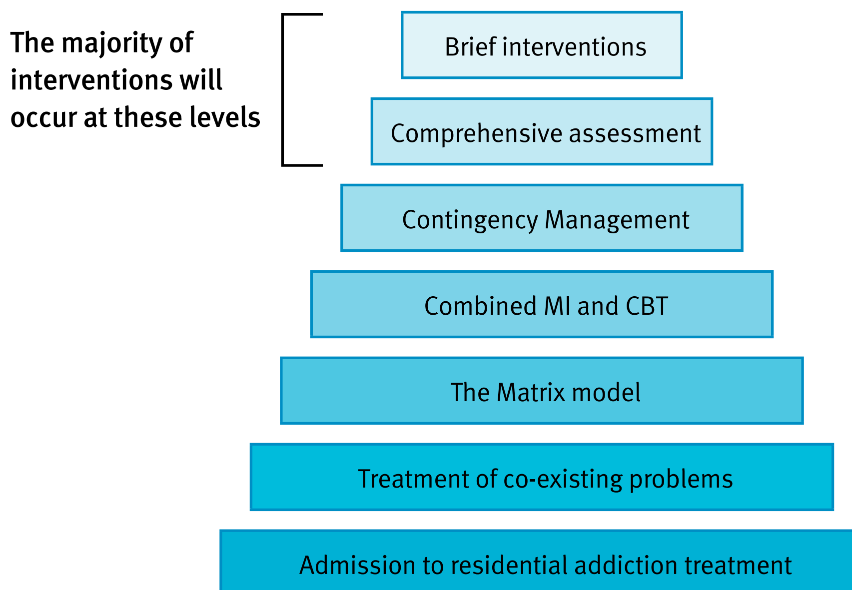


Time course of Methamphetamine and ATS Withdrawal	
Days since last use	**Symptoms**
1–3 Days **Common to most people who use methamphetamine and ATS**	**Crash** exhaustion many hours sleeping low mood/depression
2–10 Days **Common** ↓ **Very Uncommon**	**Withdrawal** strong urges to use – cravings mood swings, anxiety, irritability, feeling flat, drained agitation tearfulness sleep problems poor concentration diarrhoea aches, pains and headaches hunger paranoia hallucinations
7–28 Days	**Physical and neurological recovery** mood swings depression sleep problems cravings
One to three months, sometimes longer, especially if person has used heavily for a long time	**Protracted** sleep patterns improve energy levels get better mood settles slowly resolving anhedonia (being unable to feel pleasure)

Used with permission by Turning Point Alcohol and Drug Centre Inc. from the guide *Getting through Amphetamine Withdrawal* (Lintzeris et al 2004).

Treatment for problematic use of methamphetamine and amphetamine-type stimulants

Figure 6: Stepped care for treating problematic methamphetamine and ATS use



First contact or triage

As people who use methamphetamine and amphetamine-type substances are recognised as less likely to access and to stay in treatment (Kelly et al 2005) the first priority should be to provide an effective intervention as quickly as possible, preferably at the time of first contact, even if this is only brief. The time that the person is in first contact and or is triaged should be viewed as potentially the only opportunity there may be for a 'brief intervention'. Workers should endeavour to make the person feel welcome and engage them in a positive process in which they feel heard and acknowledged as people with unique needs, by someone with the knowledge and resources to help them. As with all therapeutic interventions building a positive relationship with the person is the basic foundation of engagement, retention and treatment success.

People who use methamphetamine may be somewhat more difficult to engage in treatment because of the nature of methamphetamine effects, and the general stigma in the community about admitting methamphetamine use.

Methamphetamine effects that can interfere with developing a therapeutic relationship include tangential apparently random conversations, anxiety, suspiciousness, difficulty thinking clearly and paranoia. As a consequence building relationships requires flexibility and patience. Standard assessment practices and asking a lot of questions may be inappropriate and could alienate the person. It is also important to tailor interventions to what the person actually wants at that time, while keeping a clear harm reduction focus.

A 'stepped care' approach appears to be the most appropriate strategy, that is, adapting the intensity of treatment intervention to the person's motivation to change, their engagement in treatment and their particular needs.

Collect basic biographical information (name, date of birth, contact number, address) while paying attention to the person's level of suspiciousness, reassuring them that this is normal practice.

- Ask:
  - the person's reason for presenting and what help they want
  - what they have been using, how long, how often, how much and how used
  - if possible find out about other substances used at the same time
  - what have the consequences, harms, of using been
  - do they have any mental health issues, pre-existing or emerging, and are they prescribed any medication?
- If obviously psychotic and or agitated; gather what information that is safe to collect taking into account any possible cultural factors in presentation of apparent symptoms, discuss treatment options and request permission to refer them to the local Mental Health Community Assessment Team.
- If the person is in acute withdrawal discuss the probable course of withdrawal, reassuring them that this is time limited and usually uncomplicated. A self-guided withdrawal booklet (see appendix 2) is available for people who use methamphetamine and ATS to take home. This is also available online at http://www.matuaraki.org.nz/
- In extreme cases refer on for acute withdrawal management. Withdrawal may need to be managed by community, social, respite or inpatient detoxification, depending on the severity and associated mental health issues.
- Do a brief risk assessment, that is particularly focused on suicidal and homicidal ideation and includes specific risks associated with polysubstance use. If risks are apparent from conversation or self identified follow normal service procedures.
- Develop an initial treatment plan in negotiation with the person, taking into account the person's motivation for change.
- If appropriate, provide brief harm reduction advice about:
  - safer injecting practices, ie, using new equipment every time, not sharing equipment or paraphernalia
  - impact on driving skills, such as impaired concentration and distractibility
  - having regular days off to eat healthy food, recover and sleep
  - looking after teeth and oral hygiene
  - drinking enough fluids, especially water and fruit juices, to avoid dehydration
  - safe sex
  - possible risks to fetus if pregnant, ie, low birth weight, behavioural and learning problems in later life
  - the risks of polysubstance use, eg, ATS and alcohol used at the same time places the person at extreme risk physically and also of driving while intoxicated as ATS will counteract the 'feeling' of being intoxicated on alcohol
  - how to recognise an escalating problem with methamphetamine and ATS use
  - specific risks of ATS use when person has a pre-existing mental health problem.

- Make a time as soon as possible for the next appointment to continue with the comprehensive assessment and treatment process.
- Encourage the person to bring their partner and or family or whānau members to sessions to support them through treatment.

If it is possible a text reminder to the person's mobile phone the day before the appointment will help to remind them of the appointment and their stated commitment to attend.

Assertive follow-up is recommended if the person does not attend the appointment. Telephone, text (SMS) and or write to attempt to engage the person in treatment.

Partner, family member, whānau involvement

Involving partners, family and whānau members as soon as possible in the person's treatment helps to demystify what treatment is about and provides an opportunity to encourage support for the person to make changes in their behaviour and lifestyle. Getting advice from or working alongside kaumātua, matua or other cultural advisors can enhance communication and engagement with Māori, Pacific and Asian families and whānau.

With the person and their partner and or family and whānau members, work out what specific changes the person can make to meet the needs of their partner and or family and whānau members, and what the partner, family and whānau can do to support the person to stop using methamphetamine and ATS. Once there is an agreement on what behavioural changes and strategies are needed this can form the basis of a contract between the person and their partner and or family and whānau members.

Appendix 1, 'Supporting a Family, Whānau Member or Friend through Methamphetamine and Amphetamine-Type Stimulant Withdrawal' may be a useful resource for the family and whānau.

Partners, family and whānau members are likely to need the opportunity to express how they feel about the impact of the person's methamphetamine and ATS use on their lives.

When strong negative feelings towards the person who has been using ATS are evident, it may be helpful for the family member to talk to a separate counsellor or support person.

This would also provide an opportunity to discuss:

- specific information about the effects of methamphetamine and ATS
- how they have managed as a partner, family or whānau to date
- strategies about how they might respond in a constructive manner to the person's behaviour
- the importance of general self-care.

Family Inclusive Practice training is available through Kina Trust: http://www.kinatrust.org.nz/

The dates and locations of these workshops are provided on: http://www.matuaraki.org.nz/

Risk assessment where children are present in the home

Methamphetamine and ATS use by parents and caregivers does not automatically place children at risk of abuse and or neglect. However, with more regular and or dependent use the risks to children may escalate. The potential and apparent risks to children from parents or caregivers who use methamphetamine and ATS in a problematic manner should be carefully considered at the time of first contact and throughout ongoing contact.

Specific risks to children can include:

- physical neglect due to a large part of the family and whānau income going on ATS use
- neglect due to the emotional unavailability of parents or caregivers while intoxicated
- neglect due to the physical unavailability of parents or caregivers during 'crash' times
- social isolation because of ATS associated 'paranoia'
- disruption and alienation of extended family and whānau relationships
- modelling substance use and a criminal lifestyle
- exposure to aggression and violence
- parents and caregivers driving under influence of ATS or when in withdrawal
- emotional abuse during withdrawal irritability
- physical abuse during withdrawal irritability.

When children are exposed to methamphetamine being manufactured the risks of physical harm are significantly greater. The manufacture of methamphetamine involves the use of several toxic and potentially explosive chemicals. Having children present in an environment where methamphetamine is being manufactured indicates a major parental or caregiver loss of control of methamphetamine use and or significant criminal involvement.

The decision to contact the Child Youth and Family Service to improve the safety of children needs to take into account what level of involvement and what patterns of ATS use parents and caregivers report. Occasional or 'recreational' ATS use in the absence of children, while they are appropriately cared for elsewhere, is unlikely to have a marked impact on children's wellbeing.

Where parents are using methamphetamine or ATS in the presence of children this is an issue of serious concern and should be questioned and harm reduction suggestions provided. Harm reduction strategies can include:

- using methamphetamine and ATS only when children are staying with other trusted family and whānau
- keeping methamphetamine and ATS use to one night a week at the most
- having long breaks from ATS use when problems emerge
- no methamphetamine and ATS talk, use or dealing in front of children
- not leaving equipment and paraphernalia easily accessible or visible
- having supplies of methamphetamine and ATS securely locked away
- having adequate recovery time before resuming normal parenting duties
- paying bills and stocking cupboards before purchasing methamphetamine or ATS.

It can be particularly challenging for workers to know when and how to safely respond to the risks to children from parents or caregivers who use methamphetamine and ATS in a problematic manner. Workers should discuss their specific concerns with colleagues, senior staff, mentors and supervisors.

Referral to CYFS should follow the standard policies and procedures of the service. If these pathways do not exist it is highly recommended that they be developed in consultation with senior staff, consumer and family or whānau advisors.

Working with young people who use methamphetamine and other ATS

When working with young people it is important to ensure that the intensity of treatment is not likely to alienate the young person. This means prioritising building a relationship with the young person and tailoring interventions to their needs, maturity and motivation. Generally this would mean specifically focusing on the presenting issues and providing harm reduction advice, with the expectation that interventions could be brief and or intermittent.

When young people do engage in treatment over a period of time then an assessment can be carried out over several sessions with an emphasis on their relationships, peer associations and recreational activities. In a recent New Zealand study of variables that contributed to young people staying in treatment, 'feeling connected to the programme, having a good relationship with staff and most importantly feeling empowered to have a say in areas, such as goal setting and what happens in treatment' (Schroder et al 2009: 667) were all observed to significantly impact on retention.

A service wanting to attract and engage young people should offer:

- ease of access
- prompt screening and assessment
- drop-in capability
- routine follow-up for missed appointments.

To ensure that developmental needs can be addressed and to provide more holistic care services also need to have strong links to other agencies. These could include:

- sexual health clinics
- Child and Adolescent Mental Health Services
- one stop shops or other providers of adolescent friendly physical health services
- Police Youth Aid
- Child Youth and Family Service
- Work and Income New Zealand and vocational support
- recreation providers
- schools, including alternative providers.

Outcomes for young people, especially adolescents, are likely to be improved by including family and whānau in treatment. When clinicians are experienced and trained in the use of 'family therapy' this can greatly enhance the treatment of adolescents who use methamphetamine and ATS problematically.

Family and whānau should be provided information about how to support young people effectively and what to do if they have concerns. Referral to other family support organisations may also be of value.

Where a young person self refers to a service efforts should be made to encourage family and whānau involvement. If the young person has disclosed information that family and whānau are unaware of, especially regarding the extent of their substance use, it is likely that they will resist having family and whānau present in treatment sessions.

When the young person appears to have a significant risk of suicide or aggression family and whānau should be contacted and informed of the risks as soon as possible, even without the young persons consent.

Working with Pacific peoples who use methamphetamine and other ATS

It is important to avoid making the assumption that a person with a Pacific heritage is either totally acculturated with a 'western' worldview or fully immersed in their culture. Respectful and thoughtful culturally aware behaviour and questioning can help workers establish where people sit on the spectrum of cultural identity.

Where services have a matua, Pacific advisor or Pacific competent workers available, consult about the appropriate steps to engage the person in treatment, cultural considerations that could impact on how diagnoses are made and how treatment plans are formulated and delivered. As there are few advisors, matua or Pacific health workers in New Zealand clinicians in most services will need to maintain awareness of their own limitations and what they do not know that could be relevant to engagement, assessment and treatment.

The DSM IV has guidelines for incorporating cultural assessment into formal diagnoses and is a useful starting point when working with people from differing cultures. Major areas of consideration for working with Pacific peoples are family, the importance of language and tapu (sacred things).

When services are contacted by a Pacific person it is appropriate to invite and encourage their family to join them at the earliest possible time. Pacific families may in fact bring a family member to a service concerned with their behaviour. For Pacific peoples 'family' can include a wide range of individuals with interconnections, status and responsibilities for and to the person. Some people may not have active contact with family but will be very aware of their connectedness within their community.

With so many different Pacific peoples settled in New Zealand there is a diversity of Pacific languages. Use Pacific terms with caution to avoid possibly causing offense. Maintaining respect for language as an integral part of the person's identity and asking for explanations rather than assuming understanding is likely to improve communication and relationship building. When working with someone not comfortably fluent in English it will be helpful to have access to an interpreter.

For most Pacific peoples spirituality is an active and core part of their being. Awareness of this dimension of Pacific people's lives and how it is expressed is necessary when assessing wellness and formulating diagnoses and treatment plans.

Real Skills plus Seitapu provides valuable and practical advice about cultural assessment and working with Pacific peoples. This available online from http://www.leva.co.nz/

Brief intervention

A Brief Intervention can happen at the first contact, alongside triage or at the next appointment. A brief intervention can include actions such as asking appropriate questions, giving information, follow-up and engaging in more than one counselling session.

FRAMES

The acronym FRAMES has been used to describe one established model for brief intervention.

FRAMES
• Feedback is given to the person about the potential risks of use. • Responsibility for making change is the person's. • Advice to change is given by the clinician. • Menu of alternative treatment options is offered to the person. • Empathic style is used in counselling. • Self-efficacy is encouraged in the person.

A brief intervention can consist of five basic steps that incorporate FRAMES.

- Discuss methamphetamine and ATS use in the context of the person's health.
- Briefly screen, evaluate, and assess (as above).
- Provide non-judgemental, informed and realistic feedback.
- Talk about behaviour change and goal setting.
- Summarise what has been discussed and review.

The key to an effective brief intervention is to negotiate one single, straight forward, measurable and readily achievable behavioural change that will allow the person to experience a success doing things differently. This could be as simple as organising automatic payments for power each week to avoid big debts accumulating, because apparently 'spare' money has been used to buy ATS.

People who succeed at making small changes are more likely to return to consider further behaviour changes.

For more information about Brief Intervention techniques follow the link below; http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hssamhsatip&part=A59525

The Psychostimulant Check-Up

Another brief intervention specifically developed for use with people who use ATS is the Psychostimulant Check-Up (Smout et al 2010). The Psychostimulant Check-Up, adapted from the brief intervention tool the Drinkers Check-up, begins with a brief assessment of the past three months substance use and then

explores with the person what the effects, both the wanted and the unwanted, of methamphetamine and ATS have actually been.

Major areas of interest for exploration are the impact on:

- sleep
- appetite
- mood
- enjoyment
- social functioning
- occupational functioning
- thinking
- physical health
- risk-taking.

The questions are designed to explore what it is like for the person while using, and what it is like when not using, methamphetamine or other ATS. The intent is to highlight for the person the personal impact of their own use. Each area of interest has a series of 'prompt boxes' available (Smout et al 2010: 171). The prompt boxes provide a range of suggestions about specific consequences of ATS use for those people who are not immediately able to recognise or describe the consequences of use. Generally interventions are designed to last thirty minutes. The Psychostimulant Check-Up is used as an assessment tool on which to base feedback, summarising concerns identified by the person and providing any needed information or identifying any action that would help, eg, referral on, or harm reduction information (Smout and Kranikow 2008). Further detail of this brief intervention technique is available from; http://www.dassa.sa.gov.au/webdata/resources/files/Psychostimulant_Check-up_Training_Kit_Manual.pdf

A copy of the Psychostimulant Check-Up (Smout et al 2008) is available from http://www.dassa.sa.gov.au/webdata/resources/files/GP_resources.pdf

Assessment

Where it emerges that people have more complex needs than can be addressed by a brief intervention, the next step for a successful intervention is to ensure that a comprehensive assessment is carried out. This may need to be carried out over several sessions to avoid the possibility of inadvertently pressuring the person and to allow for the management of acute needs. A thoughtfully paced assessment will help build the relationship and inform treatment planning and appropriate interventions, while also providing the person with some insight into their own processes.

Models and the structures of assessments vary in format but generally will include:

- presenting issues
- detailed substance use history and patterns of substance use over time
- current substance use including frequency, amounts, how used and last use
- impact of substance use and risk taking behaviour
- evidence of withdrawal, historical and current

- what the person identifies as problematic, if anything, about their substance use and their goals for treatment
- gambling history
- developmental history, family and whānau background and relationships, parenting responsibilities
- family and whānau substance use history and physical and mental health history
- cultural assessment and formulation, social connectedness and needs
- education and employment history
- history of trauma: physical, emotional and psychological
- physical health history and current issues and medication, noting any traumatic brain injuries (*TBI*) and results of cognitive screening
- mental health history with current mental health status and medication
- forensic history and current or pending justice involvement
- risk assessment: self-harm and harm to others including safety of children
- formulation of issues
- diagnoses
- treatment goals
- a negotiated treatment plan.

For a more detailed description of a model of assessment refer to Todd (2010). http://www.moh.govt.nz/moh.nsf/indexmh/assessment-mang-people-coexisting-mental-health

Throughout the process of assessment motivational interviewing skills can be used to help clarify the person's attitude to change, their goals and what the clinician could offer in terms of treatment options.

The priorities for treatment are to address any co-existing problems, encourage use of harm reduction strategies, to engage and retain the person in effective treatment and to monitor any risk associated with ATS use eg, drug induced psychosis and or threats to self or others.

Problems that can accompany the use of methamphetamine and amphetamine-type stimulants

Co-existing problems

Co-existing problems (CEP), that is mental health problems that occur at the same time as methamphetamine and ATS use, will have an impact on peoples functioning and failure to address them can contribute significantly to the possibility of future return to ATS or other substance use.

Common CEP occurring in people who use methamphetamine and ATS include depression, anxiety and psychosis (Dyer and Cruickshank 2005). Apart from psychosis, which requires urgent specialist assessment, acute presentations of mental health symptoms need to be managed carefully and

conservatively initially. However, persisting distressing symptoms need to be specifically addressed, at times with the use of appropriate medication, most often anti depressants with anxiolytic properties. Where services have ready access to medical specialists this can usually be managed in-house. Where medical specialists are not available, or symptoms are severe, then referral to a specialist mental health service will be needed. People who are prescribed an SSRI, eg, fluoxetine, will need to be advised of the risks of serotonin syndrome if they use ATS while taking an SSRI.

Some other medications used in mental health treatment can also have unpredictable interactions with ATS including; selegiline, bupropion, sibutramine, venlafaxine, MAOIs, lithium and clomipramine. Please see *Te Ariari o te Oranga* (Todd 2010: 168–9) for a more complete list of interactions and potential risks as well as specific information on assessment and management of people with co-existing mental health and substance use problems.

Cognitive behavioural therapy and motivational techniques (see pg 31) are also appropriate to help people develop long term management strategies for mood disorders. Developing these strategies can occur in tandem with treatment to address ATS use.

Personality traits such as risk taking, novelty seeking and low harm avoidance will increase the likelihood of someone being attracted to substance use, including use of ATS. The presence of a personality disorder, such as a borderline or anti social personality disorder, can have a significant impact on the intensity of treatment that will be required and engagement and compliance with treatment. Knowledge of these disorders and some appropriate strategies to improve engagement with people with these disorders will enhance treatment engagement and outcomes.

Other problems

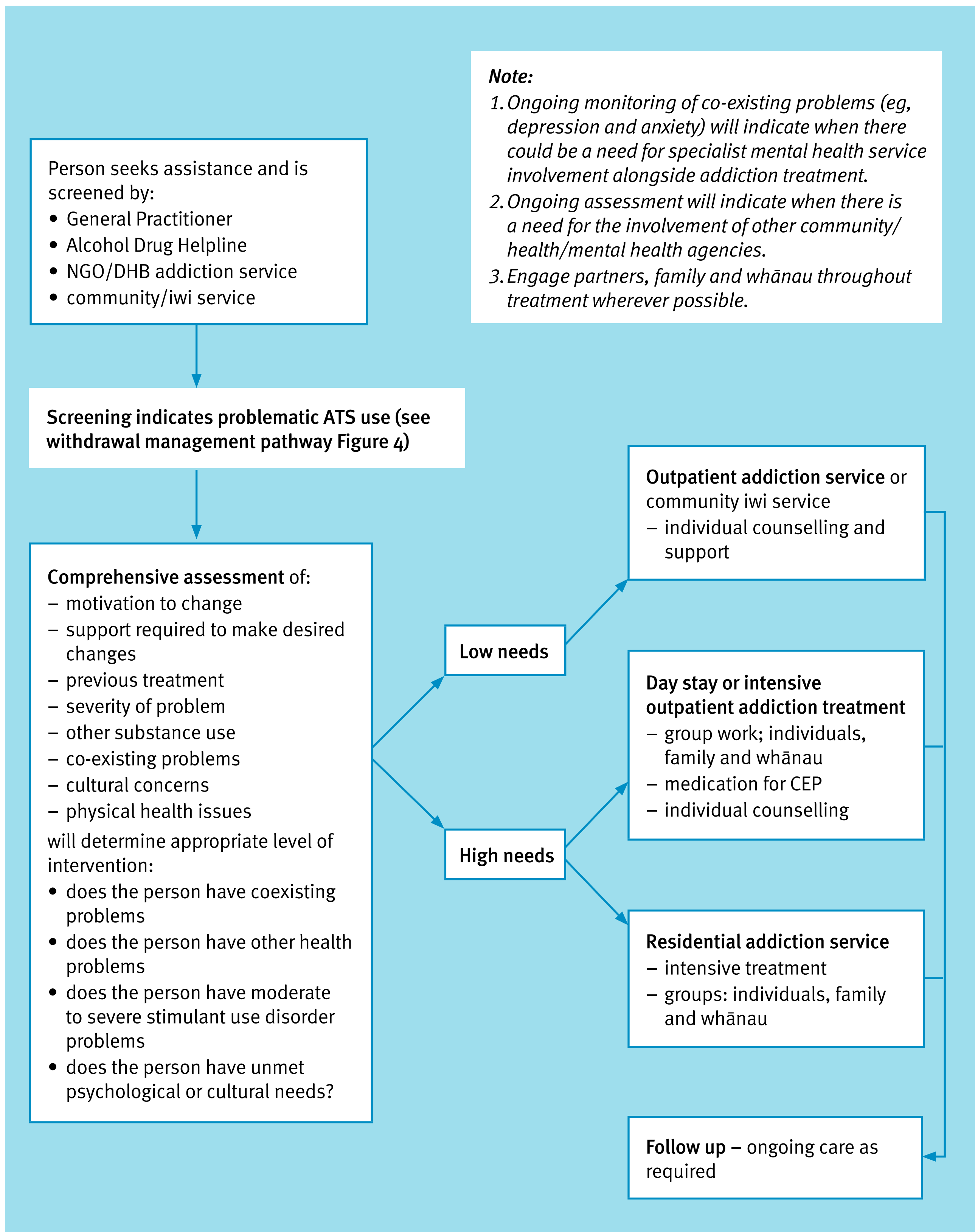
Other issues that can have an impact on treatment outcomes include physical health, social, employment and cultural problems. These problems may sometimes be directly due to ATS use (eg, dental problems, skin problems, financial problems), a consequence of ATS use (eg, withdrawal effects, alienation from family and whānau) or predate ATS use (eg, disenfranchisement from culture).

Physical health problems should be addressed as part of a holistic approach to treatment as resources allow. Nutritional advice and monitoring can greatly enhance peoples well being and recovery, physically and psychologically. Green prescriptions and support to develop recreational activities will help both physical health and provide alternatives to ATS use. Advocacy and support to access dental care, treatment for hepatitis C, and or sexually transmitted diseases may be required to encourage self cares. Be aware of the possibility of serious physical complications potentially due to ATS use, such as cardiomyopathy and stroke, and screen for these as able.

Many people who use methamphetamine and other ATS will have financial problems directly related to use and this needs to be acknowledged and addressed. This can be achieved either through direct advocacy with Work and Income New Zealand or referral to appropriate workers within your service or community agencies. This may be for financial assistance, vocational guidance, budgeting or goods.

Involving partners, family and whānau at the outset of treatment will help to address interpersonal and social problems that are a consequence of, or which predate, ATS use. Specific relationship counselling and or family therapy may be needed as issues emerge. Where these skills are not available within a service then referral to an outside agency can be made. Knowledge of community resources will be helpful at these times. When working with people from other cultures working alongside kaumātua, matua and cultural advisors will improve engagement, retention and treatment outcomes.

Figure 7: Stepped care pathways for treatment of problematic use of methamphetamine and amphetamine-type stimulants



Treatment models with an evidence base for treatment effectiveness

The rationale for using treatment models that have an evidence base for effectiveness is to get better treatment outcomes for more people in a cost effective way. Treatment for addiction grew out of the self help movement and the work of charitable organisations and as a consequence models for interventions arose out of pragmatic considerations and observation of what worked. Over time the expectations on treatment providers, and funders, to provide evidence based interventions have increased. Evidence based treatment is the use of interventions that show consistent 'scientific evidence' of being associated with desired outcomes.

The 'gold standard' of scientific evidence is the 'randomised treatment control' study in which people are randomly assigned to different types of treatment with outcomes compared for statistical significance over time. Types of treatment that are statistically more effective over several studies are considered to have an evidence base for effectiveness. As not all available models of treatment have been studied this does not mean that models currently used should be discarded but embracing evidence based practice of treatment for problematic methamphetamine and ATS use is likely to improve outcomes.

A Cochrane review of 'randomised treatment control' studies of interventions for people with 'cocaine and psychostimulant amphetamines related disorders' noted that there were reductions in rates of substance use after an intervention. Based on the available evidence the reviewers were unable to favour any particular type of treatment (Knapp et al 2007).

A separate review of randomised treatment control studies of treatment specifically targeted for problematic methamphetamine use (Lee and Rawson 2008) also found limited numbers of studies. Of those studies generic substance use counselling emerged as a useful intervention but outcomes were better for Cognitive Behavioural Therapy (CBT), with or without Motivational Interviewing (MI), and Contingency Management (CM), especially for reducing methamphetamine use while in treatment. It was unclear if the changes in methamphetamine use were sustained after treatment for those people involved with Contingency Management.

The Matrix Model of treatment, which integrates elements of cognitive therapeutic techniques with directive and educative strategies, has also been shown to improve the likelihood of staying in treatment, completing treatment and abstaining from methamphetamine and ATS as measured by urine drug screening while in treatment (Rawson et al 2004).

Taking these reviews into account and based on current knowledge of effective treatment strategies, details of a short term model of treatment, using motivational interviewing and cognitive behavioural strategies are outlined in the following section; 'A model of short-term intervention using motivational interviewing and cognitive behavioural therapy'.

An outline for a longer term CBT intervention can be downloaded from http://www.matuaraki.org.nz/

These practical guidelines have been adapted with permission from Turning Point Alcohol and Drug Centre Inc's: *Clinical Treatment Guidelines for Alcohol and Drug Clinicians: No 14; Methamphetamine Dependence and Treatment* (2007).

NOTE: The techniques used within CBT strategies require a reasonable level of cognitive functioning and are generally not appropriate to use when someone is intoxicated, agitated, confused or has any cognitive impairment.

Following the description of the short-term CBT intervention both the Contingency Management and the Matrix Model of treatment are briefly described and discussed as treatment techniques that could be considered for use in New Zealand.

For some people who use methamphetamine and ATS problematically community based outpatient interventions may be insufficient to provide the level of care and therapy that is needed for them to change behaviour. A set of suggestions have been provided at the end of these guidelines for clinicians to consider prior to making the decision about referral to residential addiction treatment.

A model of short term intervention using motivational interviewing and cognitive behavioural therapy

While this is presented as a four session treatment package, it is accepted that in practice sessions will need to be more flexible and responsive to the needs and presenting issues of the person.

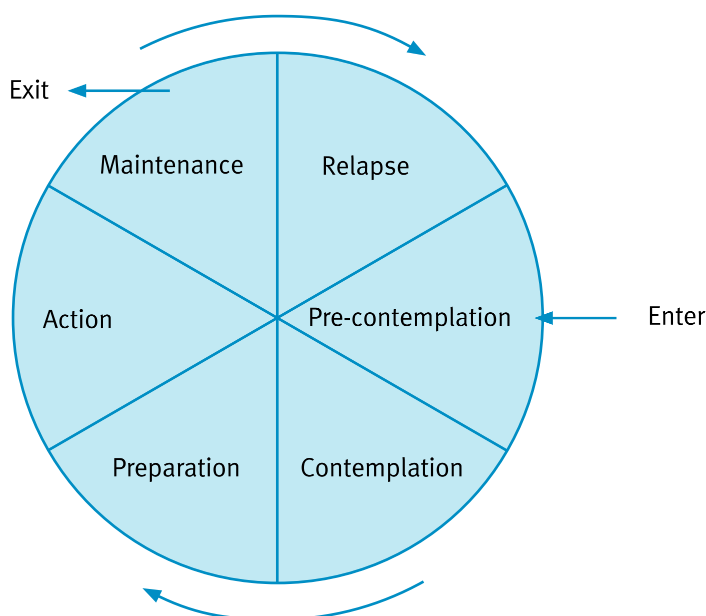
All Worksheets are available for separate download at http://www.matuaraki.org.nz/

Session one: building motivation to change

Motivation to change does not suddenly appear. People need reasons to change behaviours, especially behaviours that they associate with enjoyment. For many people deciding to do things differently requires a series of negative consequences that eventually outweigh the perceived benefits of the behaviour. This process can take time as people can struggle to acknowledge that the negative consequences are a result of the behaviour.

One model of the process of change is the Transtheoretical Model of Change (Prochaska and DiClemente 1998). This model proposes that people go through several stages before actually making changes in their behaviour. Pitching treatment interventions and conversations to the appropriate stage can help to improve the therapeutic relationship and enhance the likelihood of the person making changes in substance using behaviour. Specific motivational interviewing techniques and skills can help to target these conversations through the different stages of change.

Figure 8: Motivational model of change



Source: Prochaska and DiClemente 1998 (from *Te Ariari o te Oranga* (Todd 2010))

With pre-contemplators (people who have not even thought about changing their ATS use)

- Provide feedback from the assessment, checking with the person that it is a fair summary.
- Explain reasons that it would be useful to go ahead with treatment, emphasising that any changes in behaviour would be up to the person.
- Provide realistic information about risks and specific harm reduction advice, preferably in writing, as this group of people who use ATS are the least likely to return.
- Appropriate goals for pre-contemplators and contemplators might be harm reduction behaviours or monitoring use over time.

With contemplators (people who have been thinking about and weighing up the impact of their ATS use)

- Find out from the person what impact methamphetamine or ATS use is having on their life.
- Clinicians may need to prompt and lead this discussion, using their knowledge of the possible negative effects of methamphetamine and other ATS, as people who use ATS may not realise that some things happening in their lives are potentially consequences of use.
- Discuss with the person what they consider to be the good things and not so good things about using methamphetamine or ATS, weighing these up in a 'decisional balance'.

Worksheet One can help with this process and can be kept as a record.

With people at the preparation, action and maintenance stages of change (people who have made the decision to change, actually made changes and are sticking to it)

- Further explore what the negatives and not so good things about using methamphetamine or ATS have been for them.
- Discuss and reinforce the potential health risks of using methamphetamine and ATS.
- Discuss the financial impact of using ATS.
- Get the person to describe their life before using methamphetamine and/or other ATS and then, looking forwards, what their future life would be if still using methamphetamine or ATS.
- Discuss the discrepancy between their self image of themselves as a father/mother/partner/son/daughter/worker etc, and the reality of being someone who uses methamphetamine or ATS.

Strengthening commitment

- Summarise those parts of the previous conversations that show dissatisfaction with how their life is now.
- Allow the person to state **their need** for change: 'What would you like to be different?'
- Emphasise that it is their choice to make any changes and how they go about it.
- Explore fears of change and possible losses that might go with it.
- Help the person develop goals for behavioural change that are realistic and achievable.

Identifying urges and cravings to use

- Help the person to identify behaviours, thoughts and feelings that have been associated with their methamphetamine and ATS use.
- Identify high-risk situations and triggers for using methamphetamine and ATS.

Worksheet Two can help people keep a record and track this between sessions.

For people interested in knowing more about motivational interviewing

The National Drug and Alcohol Research Centre based in Sydney provides a succinct online summary of Motivational techniques; http://www.med.unsw.edu.au/NDARCWeb.nsf/resources/AOD1/$file/Motivational+interviewing.pdf

Training opportunities for motivational interviewing are advertised on http://www.matuaraki.org.nz

Session two: managing craving and lapses

Craving

- Use **Worksheet Two** as a framework to discuss 'craving' as a concept, normalising craving as an expected part of the process of reducing or stopping methamphetamine or ATS use.
- Reinforce that cravings will go away over time if the person does not use ATS.
- Identify specific triggers to use methamphetamine and ATS and encourage the person to avoid predictable situational triggers for craving.
- Use **Worksheet Three** to discuss a range of strategies to manage cravings and develop an individualised plan specific to the person.

Strategies to manage cravings

Delay

- Encourage the person to delay the decision to use methamphetamine or other ATS for a minute, or more, at a time when cravings occur.
- Ask the person to say to themselves 'I will not do anything about my cravings now. I will **delay** my decision for … minutes'.
- This will help break the pattern of immediately responding to cravings.

Distract

- Once the decision to use methamphetamine or ATS has been delayed then the person needs to distract themselves from thoughts of using.
- Discuss a possible range of options that would distract them, such as going for a walk, listening to music, having a bath etc.
- Write these on the worksheet so they are at hand when cravings occur.

- Explain to the person that once they are busy or doing something they are interested in, the urges to use methamphetamine or ATS will reduce in intensity.

Decide

After cravings have passed ask the person to remind themselves why they wanted to reduce or stop use. Then ask them to consciously decide to continue on that path, congratulating themselves on not giving into something as temporary as a 'thought' or a 'feeling'.

Positive talk

Ask the person to remind themselves of the short-term nature of cravings:

- 'this feeling will pass'
- 'I can deal with this'
- 'I don't have to act on the cravings as they will go away on their own'.

It is important to acknowledge that cravings are uncomfortable and unpleasant but also that they are not life threatening and will pass.

Relaxation

If cravings develop in response to stress, relaxation and deep breathing exercises can help the person manage stress better. Introduce the person to a relaxation technique and diaphragmatic breathing techniques.

Breathing techniques are useful for everyone to learn to manage anxiety. For people prone to depression, engaging in regular exercise and activities, such as walking or gardening, may be more helpful for stress reduction rather than meditative or introspective exercises.

A guided audio relaxation technique is available, free for download, from http://www.matuaraki.org.nz/

Worksheet Eight provides a technique for learning diaphragmatic breathing.

Guided imagery

Urges to use can be triggered by dreams or powerful visual images and these strategies can be useful to help manage these.

Mastery

Ask the person to imagine being in the situation they visualised or dreamed about and then to imagine not reacting to the urge to use methamphetamine or ATS. Then ask them to imagine how good they would feel about not doing it.

Alternative

Ask the person to imagine the situation and replace the image with an alternative image of a good memory not associated with using.

Fast forward

Ask the person to imagine the situation and to press the 'fast forward' on the remote control, imagining in detail the usual outcomes of using methamphetamine or ATS in that situation. Ask them to describe the short and long-term consequences in detail.

Urge surfing
Ask the person to imagine that their 'urge' to use is a 'wave' and then to imagine surfing the wave until it finally breaks and fades on the beach.

Dealing with a lapse

Prevention

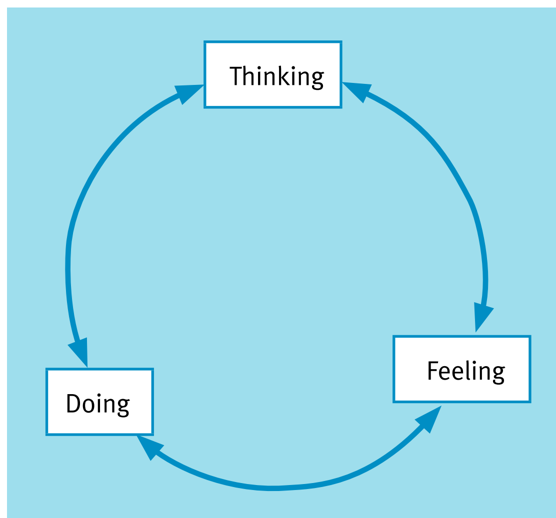
- Discuss the 'breaking the rule' (abstinence violation) effect with the person to reduce the chances of them saying to themselves: 'I've blown it now so I might as well go for it'.
- Discuss the language people use, having broken the rule, that feeds into continuing to use:
  - 'I knew I wouldn't be able to stop'
  - 'I've stuffed up already so bugger it'
  - 'Nothing has helped – I am right back at square one'.
- Suggest more realistic alternatives.

If or when it happens

Help the person to understand that lapses are predictable and that using methamphetamine or an ATS again does not mean that they have failed. Encourage people to use the lapses as an opportunity for them to learn more about their triggers to use ATS and what they will need to be aware of and to be vigilant about.

Session three: controlling thoughts about using methamphetamine and ATS

Figure 9: Thinking, feeling, doing cycle



Describe the cycle of **thinking, feeling, doing**.

Use a very general example to help explain the concept of how thoughts, feelings and behaviours are interconnected, eg, negative thoughts trigger bad feelings that lead to behaviour which feeds into worse feelings which produce even more negative thoughts and so on.

Identify unhelpful thinking

Explore an example of this process from the person's life.

Prompt the discussion as needed, using knowledge of the person obtained during their assessment.

Describe some general styles of unhelpful thinking

Black and white thinking:

- everything is good or bad with no in between
- having strict rules for life
- perfectionism
- everyone must like you all of the time.

Expecting the worst:

- habitually thinking the worst
- mind reading
- fortune telling – and it's all bad for you.

Mental filter:

- making judgements about what happens based on what has happened in the past.

Catastrophising:

- giving too much meaning to events, especially negative ones
- convincing yourself that if something goes wrong it will be totally unbearable
- after an argument thinking the other person hates you and won't want to know you.

Over generalisation:

- expecting that something that didn't work one time will never work
- believing that something that went wrong one time will always go wrong.

Personalising:

- blaming yourself for anything that goes wrong
- taking responsibility for other peoples feelings and behaviour
- confusing feelings as being facts.

Shoulds and oughts:

- feeling guilty after not doing what you believe you 'should' do
- setting unrealistic expectations of yourself and others
- getting disappointed or annoyed when expectations aren't met.

Discounting positive experiences:

- minimising and dismissing the good things that happen to you
- minimising and dismissing the good things that you do.

Challenging unhelpful thinking

- Help the person to identify their unhelpful styles of thinking.
- With this knowledge work together to predict unhelpful habitual thoughts that would sabotage them being able to achieve their goals.
- When these thoughts have been identified, discuss alternative more realistic thoughts that would be helpful in a range of possible situations.

Seemingly irrelevant decisions

Discuss with the person the reality that they will encounter many high risk situations in the future, many of them unpredictable and out of their control.

There are, however, situations people can get into that at the time would seem to have been unavoidable but which, in hindsight, are predictable consequences of what were 'apparently' harmless earlier choices and decisions.

A 'seemingly irrelevant decision' (SID) is a decision to do something that may not seem to be related to substance use, but which could end up putting the person in a risky situation where using methamphetamine or ATS is more likely.

These decisions are often made at an 'unconscious' level and are driven by subtle cravings.

Many will seem unconnected to substance use but careful questioning will help the person to identify how they put themselves at risk.

People who use substances problematically need to learn how to recognise and divert SID's before following them and possibly using methamphetamine or ATS. The earlier people recognise that they are on this path the easier it will be for them to divert themselves and to avoid use.

Examples of SIDs are:

- not getting rid of substance use equipment and paraphernalia
- going to visit old 'friends' who happen to use
- going to a party where methamphetamine and other ATS could be available
- using other substances, including alcohol and or cannabis
- not telling associates that you have cut down or stopped
- going for a walk that happens to go past your old dealer's place
- not planning what to do with free time or for fun
- general lack of self care, that is, not eating regularly, not sleeping enough, not talking things out.

Discuss with the person previous times in their lives when they have used methamphetamine or ATS when they did not want to. Backtrack with them through the process that led up to use, helping them to identify any 'seemingly irrelevant decisions' that contributed to use.

It is important to make sure that the person is aware that you do not believe that these decisions were made deliberately.

Making safer decisions means becoming aware of the many decisions that we all make every day and thinking through what the potential consequences could be, especially those that increase the risk of using methamphetamine and ATS.

Practising becoming aware of and recognising the apparently minor decisions they make every day, then thinking through the potentially safe and unsafe consequences of those decisions, will help people become less vulnerable to 'unwittingly' ending up in high risk situations.

Worksheet Seven can help with identifying and acknowledging 'seemingly irrelevant decisions'.

Enjoyable activities and rewards

People who use ATS for a long time tend to have neglected activities and things they used to enjoy, as more and more time and energy revolves around using.

Preparing a plan of enjoyable things to do and possible rewards for successes can help to relieve boredom during withdrawal, ease some symptoms of depression and anxiety and help people who use methamphetamine and ATS start to think about how to replace the role of substance use in their lives.

Making a list of 'treats' and enjoyable things to do along with concrete plans of 'what to do and when' ahead of time, will provide structure and a reminder when needed.

Use **Worksheet Four** to record this.

Remind people that it is impossible to plan every moment in advance and that if things do not go as planned they do not need to beat themselves up.

People should also be reminded to review the list regularly to make sure the things on there are still enjoyable.

Session four: relapse prevention

Methamphetamine and ATS refusal skills

Begin by helping people identify high-risk friends and associates and how they could turn down the offer of using methamphetamine or ATS with them.

It can be helpful to practise these skills by role playing a few scenarios. If the clinician models the refusal skills at first this will help the person to see and hear an example of this being done.

Before the person tries it themselves, go through what they could say in their own words, encouraging the use of assertive language. After role playing, review how this felt and, if they had any problems, practise it again.

Practise refusal skills, role playing a range of situations and styles of offering and encouraging methamphetamine and ATS use.

Relapse prevention

- Use **Worksheet Five** to identify high-risk situations and early warning signs of lapse and relapse.
- Help the person to think about strategies they have acquired and how they could be used to reduce the risk of lapse or relapse.
- Ask the person to identify a set of rewards for not using methamphetamine or ATS, especially in high-risk situations.

- Remind them that not everything can be predicted in advance and help them to identify some general strategies that can be used quickly when in need. These are likely to be the ones that they have found work well for them already.
- Discuss with the person any additional strategies to reduce the risk of lapse and relapse and how they would go about learning them.

Review the Relapse Prevention Plan, when to use it and how to monitor and recognise early warning signs.

Closure

Summarise the efforts and the changes that the person has made to date, revisiting the original motivation for change. Elicit ongoing self-motivational statements as part of this process.

Encourage the person to continue to read and use the worksheets, adding to them as they learn more about themselves, particularly the thoughts, feelings and actions that precede and accompany cravings and seemingly irrelevant decisions.

Identify any other issues or concerns for the person that arose during treatment. Discuss ways these could be addressed and if needed refer the person to an appropriate agency or service.

Leave the door open for the person to return for further sessions to discuss successes and failures. Make an arrangement to follow up by telephone at the least, several weeks after the last session.

Contingency Management

Principles

Contingency Management is a form of behavioural modification based on operant conditioning techniques of encouraging desired behaviours with rewards, or 'positive reinforcement'. In its simplest form a desired behaviour, for example, attending a treatment session, is rewarded with something that has some value to the person.

As a technique Contingency Management has been used effectively in the United States and the United Kingdom, to encourage people to stay in substance use treatment and to abstain from substance use while in treatment. Abstinence is verified by on site drug screening.

The basic steps to develop a Contingency Management process are to identify:

- the target behaviour, eg, attending appointments
- the target population, eg, people who are hard to engage and retain in treatment
- the type of reinforcement or incentive; eg, something desired by the person
- the magnitude or amount of incentive; eg, getting a reward for attending an appointment
- the frequency of the incentive distribution; eg, rewarding every attendance that is planned
- the timing of the distribution of the reinforcement; eg, getting the reward on arrival
- the duration of the reinforcement intervention; eg, even staying five minutes is better that not coming at all as it is a step in the desired direction.

Research with people who use methamphetamine and other ATS has shown people who are involved with a contingency management programme tend to stay in treatment longer and provide more methamphetamine and ATS free urine drug screens while in treatment (Rawson et al 2004; Roll in Higgins et al 2007).

A major obstacle to the wider uptake of Contingency Management as an adjunct to other treatment modalities has been the perceived cost of providing tokens and vouchers as rewards. Identifying what is perceived by people as a reward, which could be as simple as a cup of coffee, a mirimiri or flexibility with contact times.

In the United States this has been addressed in part by introducing a 'variable magnitude of reinforcement', that is having people who meet the desired behaviour pick a 'prize' from a fishbowl. The 'prize' may be a card saying 'well done', or it could be a voucher worth $1, $20 or $80. A card or a voucher for $1 is the most common 'prize' and an $80 voucher is the least common (Roll et al 2006).

Contingency Management has been used within Opioid Substitution Treatment programmes using takeaway privileges or similar incentives, as the 'reward' for providing substance free urine drug screens. This use of Contingency Management was observed to reduce non medication substance use but not at similar levels to the reductions associated with voucher based reinforcement (Stitzer and Petrie, 2006). Where Contingency Management, utilising prize draw vouchers rather than takeaway medication, has been used within Methadone Maintenance programmes in the United States there has been a notable increase in abstinence from stimulants (Peirce et al 2006).

Addiction treatment services within New Zealand wanting to adopt Contingency Management as a technique to enhance treatment could consider the use of gift certificates donated by private businesses as one option to offer as incentives/rewards. Some services may be able to identify and develop other more readily accessible incentives that people could want, for example access to resources such as gyms or respite care.

The potential impact of Contingency Management as a strategy may be limited in New Zealand as the magnitude of potential rewards is likely to be low and they are therefore not likely to be desirable to people especially if abstinence from ATS is the goal. However a coupon for a take-way meal may serve to get people in the door and keep them coming back if they are on a limited income.

For those interested in reading more about Contingency Management principles the Addiction Technology Transfer Center Network, funded by SAMHSA, provides a useful summary and resources (Kellog et al 2007): http://www.nattc.org/pami/PDF/Contingency_Mgt_F_P.pdf

Ethical considerations

Behaviour modification is potentially a very powerful technique to change people's behaviours. The techniques are appealing because of their simplicity and as they do not rely on internal processing and therapy to effect change. However the use of behaviour modification techniques has some ethical implications that should be carefully considered before initiation.

It is very easy and tempting to set the 'target behaviour' at a point that suits a particular moral viewpoint rather than a legitimate therapeutic goal discussed in collaboration with the person. Services who decide to use Contingency Management techniques should have robust protocols and guidelines developed about the use of the techniques, accountability and valid 'target behaviours'.

Some workers may also struggle to give people rewards, or 'bribes', just for attending an appointment while still clearly using methamphetamine or other ATS. If substance free urine tests are identified as the desired target behaviours how to establish a 'chain of custody' procedure to reward legitimate samples

may become a complicating and expensive factor. Some workers may also struggle with potentially not investigating and treating the 'root causes' of the person's methamphetamine and ATS use, concerned that failure to do so would leave the person more vulnerable to a return to use.

As the 'prize' incentive system closely parallels gambling behaviour the use of this form of Contingency Management is unlikely to be of positive benefit when working with people with a history of problematic gambling or a predisposition to develop problematic gambling.

The Matrix Model of Treatment

The Matrix Model is a treatment package specifically tailored for treatment of amphetamine-type stimulant use disorders, and has been designed to be delivered as an intensive out patient treatment program over a sixteen-week period, using cognitive behavioural principles (Afsarifard and Freitas in Hall et al 2009).

The Matrix Model as originally structured comprises:

- individual sessions
- early recovery groups
- relapse prevention groups
- family and whānau education sessions
- twelve-step meetings
- social support groups
- relapse analysis
- regular urine drug screening.

Participants are expected to attend several treatment sessions a week over the sixteen weeks of the program. These sessions consist of:

- Individual sessions – three 45-minute sessions spent with a counsellor to develop goals and to monitor progress. Family and whānau members are encouraged to attend these sessions. More individual sessions are provided as needed to deal with crises or treatment planning.
- Early recovery groups – small groups which take the place of more regular individual counselling sessions. Early recovery groups are held two times a week in the first month of treatment and are mainly educational covering:
  - cognitive strategies to reduce craving
  - how to plan and use the days and nights
  - stopping other substance use
  - making connections with community support groups.
- Relapse prevention groups – held at the beginning and end of each week of the program. The goal of these sessions is to provide the 'recovering' person with the skills to remain abstinent. These groups are educational and positive in style.

- Family and whānau education sessions – provided in a group setting once a week for the first twelve weeks. Topics covered include:
  - neurobiology
  - operant conditioning
  - physical and psychological effects of stimulants
  - how family and whānau relationships are affected by substances.
- Twelve-step meetings – held in house each week to get people familiar with the idea of attending self help meetings.
- Urine drug screens – carried out randomly each week to provide proof of abstinence with positive tests used as indicators for the need to alter the treatment plan.
- Relapse analysis – used to help people who have lapsed, as judged by the results of the urine drug screens and self report. The analysis is designed to evaluate the steps that led to the relapse and to identify what the person needs to do or know to be able to act differently.
- Social support groups – held in the last month of treatment. These groups are designed to help attendees learn how to develop relationships with people who do not use substances. Subjects covered depend on the people in the group and their needs.

To find out more about this treatment package go to:
http://kap.samhsa.gov/products/manuals/matrix/index.htm

This site has an extensive range of free downloadable resources about the Matrix Model. This includes handouts and manuals for clinicians, handouts and workbooks for people who are in treatment for problematic methamphetamine and ATS use and handouts for family and whānau members.

Within the New Zealand context addiction services could adapt aspects of the Matrix Model to suit their resources and particular kaupapa. As an example of this the Matrix Model has been adapted into an eight-week programme to provide treatment for all substances by the Hanmer Clinic, Tauranga. Prior to starting the eight-week programme people are offered one-to-one counselling and weekly group sessions as part of the Early Recovery Programme. GPs are involved to prescribe medication to assist people when indicated. After this introduction people follow a treatment pathway similar to that of the original Matrix Model of treatment. Attending community-based AA and NA twelve step meetings are an integral part of this programme.

Admission to residential treatment

Following assessment and engagement in treatment, if it is apparent that the person is unable, or is unlikely to be able, to achieve or maintain their stated goals of controlled or no methamphetamine or ATS use in the community, the option of referral to residential treatment can be considered.

The Ministry of Health has identified methamphetamine and ATS as an issue of particular concern and has purchased residential treatment beds and social detoxification beds specifically to meet the needs of people with severe problematic methamphetamine and ATS use disorders. Each residential treatment 'package of care' comprises social detoxification, residential treatment, and aftercare. The Social Detoxification component of the package has been designed to be rapidly and readily accessible via the Alcohol Drug Helpline and community addiction services. The aim is to provide managed withdrawal from methamphetamine and ATS in a supportive environment that also encourages and facilitates entry into residential treatment or rapid access to community addiction services on the person's return to their community.

People are suitable for referral to residential treatment if they:

- have been assessed as having a moderate to severe methamphetamine-use or stimulant-use disorder
- require a significant amount of time in a safe environment to integrate treatment with day-to-day functioning
- are unable to remove themselves from a substance using sub culture
- would benefit from attending a kaupapa Māori service, where available, for culturally appropriate treatment
- have no family or whānau supports
- have high levels of health, social, cultural, psychological and or interpersonal needs
- have a chaotic home, work or social life that distracts from treatment and behaviour change
- have been mandated to have residential treatment by the Court, CYF, their employer
- have mental health issues that impact on their ability to change behaviours or which would stabilise with 'abstinence' and medication compliance.

Where choices are readily available people should be provided with a range of options for where and for how long to attend residential treatment. Clinicians may wish to discuss the relative merits of each residential service for meeting the treatment needs of the person from knowledge of the person and the service.

Referring services should expect to continue working with people after they have attended residential treatment as part of continuing care and relapse prevention. Where people choose to not return to the community from which they were referred then residential services will need to ensure appropriate referral is made to an appropriate addictions service for continuing care.

Resources

Methamphetamine specific resources and manuals available online:

Best Treatment Strategies for Methamphetamine Treatment Implementation in Montana. 2006. Chemical Dependency Bureau Best Practise Committee. http://www.dphhs.mt.gov/amdd/chemicaldependencyservices/methguidlines.pdf

Jenner, L. and Lee, N., 2008. *Treatment Approaches for Users of Methamphetamine: A Practical Guide for Frontline Workers*. Australian Government Department of Health and Ageing, Canberra. http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/8D2E281FAC2346BBCA25764D007D2D3A/$File/tremeth.pdf

Lee, N., Johns, L., Jenkinson, R., Johnston, J., Connolly, K., Hall, K. & Cash, R. 2007. *Clinical Treatment Guidelines for Alcohol and Drug Clinicians. No 14: Methamphetamine dependence and treatment.* Fitzroy, Victoria: Turning Point Alcohol and Drug Centre Inc. http://www.turningpoint.org.au/library/cg_14.pdf

Methamphetamine Treatment: A Practitioner's Reference, 2007. California Department of Alcohol and Drug Problems. California. http://www.adp.ca.gov/meth/pdf/MethTreatmentGuide.pdf

Smout, M. 2008. *Psychotherapy for methamphetamine dependence. Treatment manual.* Drug and Alcohol Services South Australia. http://www.dassa.sa.gov.au/webdata/resources/files/Methamphetamine_Treatment_Manual_FINAL.pdf

For a full and in depth review of effective treatments for people with Co-Existing Problems refer to:

Todd, F.C. 2010. *Te Ariari o te Oranga: The Assessment and Management of People with Co-existing Mental Health and Substance Use Problems.* Ministry of Health, Wellington, New Zealand. http://www.matuaraki.org.nz/index.php?option=com_content&view=category&layout=blog&id=24&Itemid=36&limitstart=8

For a more in depth exploration of cultural differences and competencies to work with Pacific people refer to the Seitapu Framework:

Pulotu-Endemann, F. K., Suaali'i-Sauni, T., Lui, D., McNicholas, T., Milne, M. and Gibbs, T. in association with PAVA, 2007. *Seitapu Pacific Mental Health and Addiction Cultural and Clinical Competencies Framework.* Auckland: The National Centre of Mental Health Reasearch and Workforce Development. http://www.tepou.co.nz/file/PDF/publications/Microsoft_Word___Seitapu_Framework_TOBEPDFVersion.pdf

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Appendices

Appendix 1: Supporting a Family, Whānau Member or Friend through Methamphetamine or Stimulant Withdrawal

Any substance/drug that is used repeatedly over time causes changes in the way our brains function. In the case of methamphetamine and other stimulants the chemical changes caused can be dramatic and lead to memory and concentration problems as well as low mood, irritability and, in extreme cases, paranoia and psychoses.

Over time those people who use regularly need methamphetamine or other stimulants to feel reasonable and close to normal. When they stop using the chemical changes in their brains trigger a range of unpleasant physical and emotional reactions. The reactions to the absence of methamphetamine and other stimulants are called **withdrawal**.

Family and whānau members get used to hearing people say that they need to stop using and that they will do it, with little evidence of anything actually changing. This is very frustrating for family and whānau and eventually they stop believing that the person wants to help themselves.

Part of the reason people struggle to stop using is that withdrawal can be so unpleasant that it triggers people to use methamphetamine and stimulants whenever they try to stop using, no matter how much they have lost or how many people have been hurt by their using.

However for the majority of people who use methamphetamine and other stimulants there comes a time when they have had enough and they make a committed decision to stop using despite withdrawal effects. When that time comes there is no guarantee of success, but if people get support the chances that they will be able to stop using, and hopefully stay stopped, are better.

Many people can provide support to a person withdrawing from methamphetamine and any other stimulants. Partners, family, whānau and friends can all play an important support role during withdrawal. Support and reassurance can really help someone get through their withdrawal.

Supporting someone withdrawing is not an easy job. There may be times when supporters are unsure about what they can do and what not to do, to help. They may also not know where to go for help if there are problems during withdrawal.

The specialist methamphetamine team at Alcohol Drug Helpline (0800 787 797), GPs and addiction counsellors are good people to contact for advice and support if you don't know what to do or how to respond.

It helps to become familiar with what actually happens during withdrawal and what can be done to make it somewhat easier for the person.

Symptoms of Methamphetamine and Stimulant Withdrawal	
Days since last use	**Symptoms**
1—3 Days **Common to most users**	**Crash** exhaustion many hours sleeping low mood/depression
2—10 Days **Common** ↓ **Very Uncommon**	**Withdrawal** strong urges to use – cravings mood swings – anxiety, irritability, feeling flat, drained, agitation, tearfulness sleep problems poor concentration aches, pains and headaches hunger, diarrhoea **paranoia*** **hallucinations (seeing or hearing things that aren't there)***
7—28 Days	**Most symptoms settle but people could still be having** mood swings depression sleep problems cravings
One to three months, sometimes much longer after a longer time using heavily	**Over time** sleep patterns improve energy levels get better mood settles life slowly becomes enjoyable again

***If your family, whānau member or friend starts to get paranoid, not just being angry and irritable, and has hallucinations that do not go away it is important that they talk to a mental health professional, especially if they have a history of mental health problems. Contacting their GP can make this an easier process but most communities have a Mental Health Community Assessment Team available for crisis assessment. Contact your regional hospital for details.**

Someone who is withdrawing may be aware of what they could be doing to help themselves, but can sometimes find it difficult to remember and to actually do these things.

Encourage the person withdrawing, especially when going through a difficult time, and help them to recognise each success. This may be something as simple as eating a meal or doing some exercise. It can also help to remind them of things they can do and to do it with them. This can include; listening to a relaxation exercise, watching TV or a DVD, going for a walk or a swim, eating regular meals, having a bath or a massage.

People who have used methamphetamine and stimulants for a long period of time often do not eat well and can become undernourished. Encouraging and providing a healthy diet; fresh fruit, vegetables and lots of protein, can help improve physical and mental health. Multivitamin and mineral supplements may also help.

The use of any complimentary or natural therapies, such as rongoa Māori, may enhance a person's well being and commitment to their own self-care and withdrawal process.

During difficult times it is helpful to go over the reasons why the person decided to stop using methamphetamine and stimulants as they may feel overwhelmed and waver in their determination to go through withdrawal. This is normal and at these times it may help the person to be able to talk about the things they liked about using methamphetamine or other stimulants, while reminding them about the things they did not like about using.

This can help people to remain clear about their reasons for stopping when they know **the one thing** that will make them feel better **right now** is using methamphetamine or another stimulant. At these times it is important to acknowledge with them how far they have come and to remember that withdrawal will pass. As hard as it is at the moment it will not last forever.

There will be times as support person that you will feel frustrated and impatient with the person you are supporting. This is also normal and you may find that you may benefit from being able to talk about these feelings to someone outside your family or whānau. For example talking to a friend, GP or counsellor may help at these times. If you are unsure what to do, get advice.

The Alcohol Drug Helpline **0800 787 797** has a seven day a week specialist methamphetamine support and information service. They can also provide contact information for your local Addictions Services.

Appendix 2:

P**d off

A guide for people trying to stop using Meth/P/Ice/Speed

Matua Raki
National Addiction Workforce Development

With thanks to Turning Point Alcohol and Drug Centre Inc
for permission to use their material

This booklet has been written for people who are thinking about stopping or wanting to stop using methamphetamine, even just for a while.

Information in this booklet will help you understand what's going on in withdrawal. There are also suggestions about how to make it easier on yourself and the people you care for. You may also find it helpful to talk it over with your GP or other health care worker.

No booklet can cover everyone's experience of withdrawal as we are all unique, but there is a good chance you will find something useful in here.

You may also find other options such as counselling, alternative therapies and self help groups such as NA and peer support groups helpful to support you through withdrawal.

The Alcohol Drug Helpline has a specialist Methamphetamine Service with trained workers available for telephone support 10am to 10 pm, 7 days a week.

Freecall the Alcohol Drug Helpline 0800 787 797

MAKING THE DECISION

You would not have started using methamphetamine if you didn't enjoy it, but like most things you can have too much of a good thing. The downside of any behaviour is different for everybody so it is a good idea to figure out just what's happening that makes you think it's time for you to have a break or quit using.

You may find it helpful to write down what the 'good things' and the 'not so good things' about using have been for you. When you can see the pros and cons in black and white it can make it all clearer, and easier to make a decision.

Many people find stopping or staying stopped is difficult because even after making the decision they still miss some things about using. This is normal and it takes time to find things to do to fill the gap.

Another reason many people find it difficult is that they forget the 'not so good' things about using, why they wanted to stop in the first place. Keeping your list of 'not so good things' handy will be a good reminder.

Whatever your reasons for stopping using are, and whatever your long term goals are, at this point getting through the withdrawal is the job ahead of you.

About Methamphetamine Withdrawal

WITHDRAWAL

Most substances used repetitively over time cause changes in the chemistry of our body and brain. Our bodies adapt to having that substance on board and only feel 'normal' when using the substance. When you stop using your body has to adjust. This is withdrawal, as your body gets used to working 'normally' without the substance. Each substance has different withdrawal symptoms. Some are hardly noticeable while some can be extreme and go on and on.

METHAMPHETAMINE WITHDRAWAL

There are a lot of different factors affecting how long and intense your withdrawal will be.

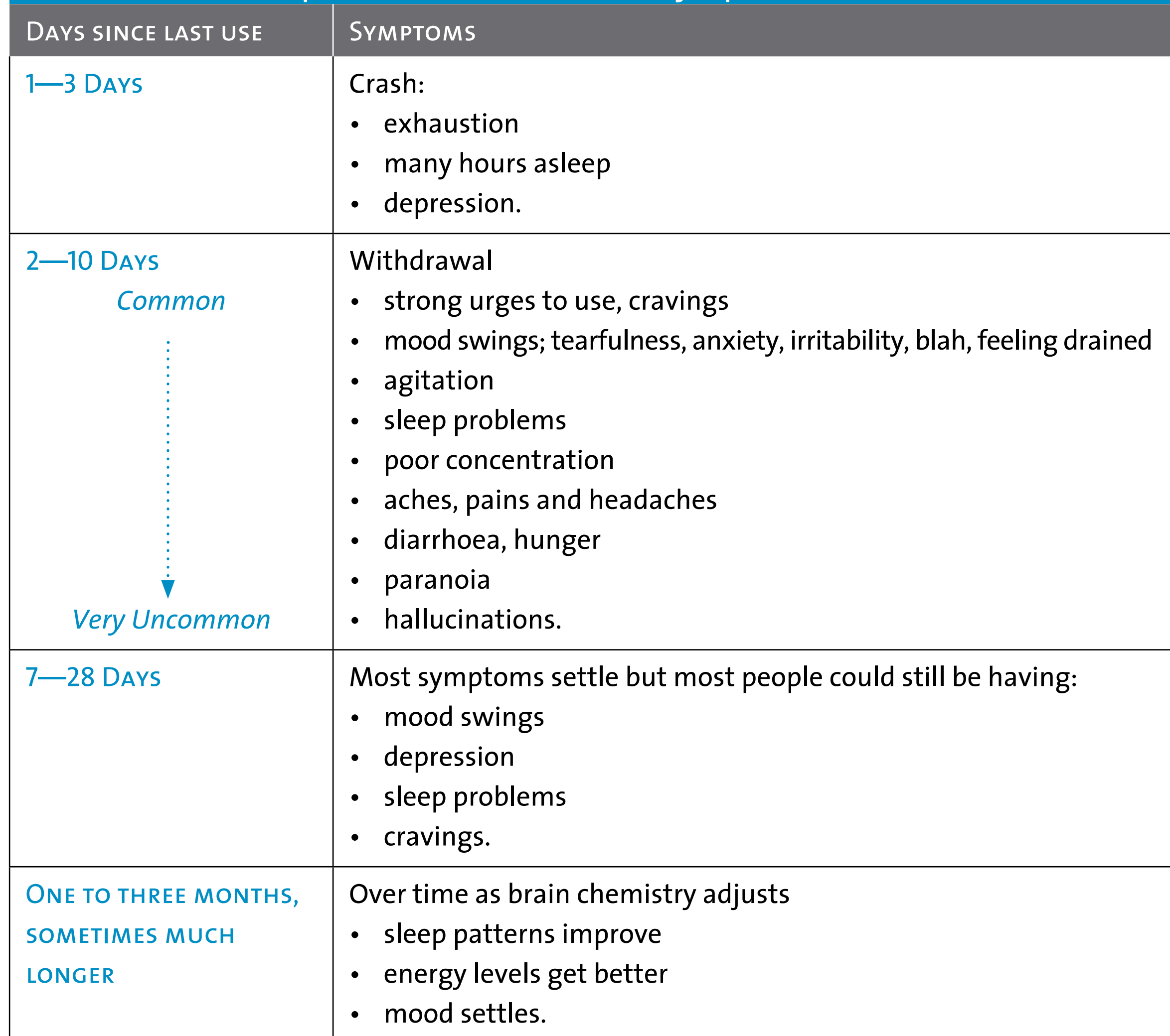
This includes:

- how much you have been using
- how often you have been using
- how long you have been using
- how healthy you are generally
- if you have any mental health issues
- your physical health
- your attitude.

If you expect withdrawal to be hard it will be. However people with a similar history can have very different experiences of withdrawal.

THINGS YOU DON'T LIKE ABOUT METHAMPHETAMINE USE

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....
7. ....
8. ....
9. ....
10. ....



Common Methamphetamine Withdrawal Symptoms	
Days since last use	**Symptoms**
1—3 Days	Crash: • exhaustion • many hours asleep • depression.
2—10 Days *Common* ↓ *Very Uncommon*	Withdrawal • strong urges to use, cravings • mood swings; tearfulness, anxiety, irritability, blah, feeling drained • agitation • sleep problems • poor concentration • aches, pains and headaches • diarrhoea, hunger • paranoia • hallucinations.
7—28 Days	Most symptoms settle but most people could still be having: • mood swings • depression • sleep problems • cravings.
One to three months, sometimes much longer	Over time as brain chemistry adjusts • sleep patterns improve • energy levels get better • mood settles.

Things you like about Methamphetamine Use

1. ....
   ....
2. ....
   ....
3. ....
   ....
4. ....
   ....
5. ....
   ....
6. ....
   ....
7. ....
   ....
8. ....
   ....
9. ....
   ....
10. ....
   ....

At some stage you may wish to tear out this page and burn it, bury it, send it down a river or out to sea. You'll be surprised how good that feels.

Starting Off »

Before you stop!

ORGANISE A SAFE PLACE

Trying to stop and going through withdrawal while people around you are using is way too hard. You might be able to do it but why make it any harder than it needs to be? Find somewhere to stay where people don't use, such as:

- a friend, family or whānau member's home where using friends can't get hold of you
- a quiet motel
- stay at your own place but put the word around that you will be away, unplug the phone and don't answer the door
- tell people you are stopping using and for them to keep away for a while.

ORGANISE SUPPORT

While you could do it on your own, it will probably be easier to go through withdrawal with some support from your family and whānau, your GP or other health care worker. You may also want to contact the Alcohol Drug Helpline (0800 787 797) now to talk with a methamphetamine specialist who can be available by telephone at those times you really need support throughout the withdrawal. Self help groups such as NA and peer support groups can also provide support.

The people around you need to be supportive, available and aware of what you may go through. If they know what is going on then they can help when it gets hard. Before you start make a list of people you can rely on, but avoid anybody in the scene and people who will just irritate you.

If people don't know what methamphetamine withdrawal is like it might be good idea to give them this booklet to read.
Use your support people to screen phone calls and visitors, and if boredom and loneliness hit.

PLANNING THE DAYS, AND THE NIGHTS

Getting through withdrawal can be easier if you have plans in place for how to use the time on a day to day basis. While at first you may feel like doing nothing, after a few days you will feel more energetic and it's good to have options about what to do with that energy. Having a planned routine (get up at a set time, shower, have breakfast and so on) can help you deal with mood swings and 'cravings'. Making a list of possible things to do that you enjoy, treats for successes, and that help you to relax and avoid using can be useful to jog your mind when in withdrawal.

MEDICATION

While some medications can reduce the severity of some withdrawal symptoms, nothing will stop the symptoms completely. There is no 'magic pill' or even combination of medications that is particularly effective in methamphetamine withdrawal. Your GP may be able to support you with a brief period of medication for sleep, if that becomes a problem, but the quality of sleep will not be the same as natural sleep.

If a problem with depression or anxiety emerges during withdrawal medication might help you deal with the worst of these feelings, especially if they don't go away over time.

Some alternative or natural therapies can help with some withdrawal symptoms. Some natural products can have unwanted side effects so rather than self medicate it is better to get advice from someone in the know. Your local health store is likely to have a list of alternative or natural therapists.

People or places to avoid

1. ....
2. ....
3. ....
4. ....
5. ....

People that will support you

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....

Things they can do: bring around meals, drive to meetings, help with housework, play cards, talk and listen.

Things to do during the day and at night

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....
7. ....
8. ....
9. ....
10. ....

What about: a movie, a massage, reading a book, nice food, a picnic, a walk in the bush or at a beach?

Getting Through Withdrawal

CRAVINGS

Powerful urges to use methamphetamine are normal and expected during withdrawal.

- Cravings are common.
- Craving are not caused by lack of motivation or willpower.
- Cravings come and go and are only intense for short periods, usually less than an hour, though this can feel like forever.
- Cravings can be triggered by stress, distress, unhappiness and pain, but will ease over time.
- Cravings will get more intense if people start talking about using or use in front of you.
- Cravings can still occur after withdrawal when triggered by paraphernalia, people, places and moods but they will become less intense and not last as long.
- Cravings reduce in intensity the longer you go without using. If you don't use they will lose power over you.

DEALING WITH CRAVINGS

Cravings are going to happen so get ready for them. Remember they are usually only really intense for short periods of time and if you have a way to get through that time they will become less intense and easier to deal with.

Tip 1

When cravings are at their worst the question will be 'Will I......Won't I?' as you struggle with the need to use and the desire to not use.

The longer the battle the more anxious you become and the more intense your cravings. Don't fight it just put off the decision for a minute or five minutes at a time. You may use, you may not, that's a decision to make after each bit of time has passed.

Tip 2

Cravings take a lot of mental energy and space so getting busy with something else will starve them of fuel. Listen to music (not your favourite using music though), listen to and go through a relaxation exercise, watch a DVD, do a jigsaw, exercise or whatever works for you. Your ability to concentrate and do complex things can be impaired in withdrawal so don't expect to be able to do anything too complicated.

Tip 3

After an hour the cravings will have changed in intensity and this is a good time to remind yourself about your reasons for not wanting to use. Look at the things you didn't like to remind you where you have been and congratulate yourself for getting through the last hour.

Tip 4

Pay attention to your breathing and imagine that cravings are a wave you are surfing/ boogie boarding and ride it, getting to know what your thoughts are and how your body feels as the wave loses power and washes over you. Get to know your cravings and record them for the future. Don't try to ignore them hoping they will go away.

SLEEP PROBLEMS

After the initial crash you may find it difficult to get to sleep and when you do sleep you could have broken nights with disturbing dreams or nightmares. This happens as your brain and body adjusts to functioning without methamphetamine.

It can take weeks for the return of normal sleep patterns, especially if you have been using heaps for a long period of time. During this time it is important to remember that sleep problems are normal in withdrawals and that they will pass.

This will be hard to remember on those nights when you get hardly any sleep, but eventually your body will demand sleep and you will sleep.

How to help yourself sleep better

- Go to bed only when sleepy.
- Apart from sex your bed is for sleeping, not reading or watching TV.
- If you don't fall asleep after 30 minutes get up, go to another room and do something that does not require much concentration. Go back to bed when you feel sleepy...repeat as necessary till asleep.
- Get up at the same time every morning no matter how long you have slept to train your body to use the time in bed for sleep.
- Don't nap during the day.
- Don't allow yourself to fall asleep during relaxation exercises during the day, but use them in bed to get to sleep at night.
- Get some exercise during the day and get tired out; whatever you have enjoyed in the past will be easiest.
- Rather than thinking and worrying in bed take time during the day to write down what's on your mind so that when you go to bed you can say to yourself, 'been there done that, it's time to sleep'. Repeat as needed.
- Avoid coffee, caffeine drinks, energy drinks and cigarettes, especially at night, as they are all stimulants and will make it harder to get to sleep.
- Small amounts of alcohol can knock you out, but only for a while after which you will be wide awake.
- Hot drinks like chamomile tea, hot milk and some relaxing teas can help at night to get to sleep.
- Health Food shops have a range of products to help with relaxation and sleep. Many of these contain Valerian and or Kava Kava as ingredients so avoid if you have liver disease. Tart Cherry juice helps readjust body clocks and encourages natural sleep patterns, but it is expensive. 5HTP helps with sleep and relaxation but should not be used with antidepressants or St John's Wort.
- Medications such as Immovane and Benzodiazepines will knock you out for sure, but will not allow your body to readjust to its natural rhythms. After a week or two your body adapts to them and when you stop taking them it's back to square one. They are also highly addictive.
- Certain low dose antidepressant medications can also help reduce anxiety and improve sleep. However they can have unpleasant side effects and are dangerous in high doses and need to be used under supervision.

HOW TO RELAX

It's common to get agitated and irritable during withdrawal so knowing how to relax is really helpful. There are a lot of ways to relax and most of us normally use a range like, listening to music, watching TV, reading a book, having a warm bath or going for a walk with a friend.

Sometimes however our usual ways of relaxing are not enough and it helps to have a specific relaxation method to help you wind down when really tense. A pre recorded audio relaxation exercise is available for free download at; www.matuaraki/org/nz/Resources/Tools/Relaxation.mp3

Download and listen through your headphones on your player.

If you do not have access to the internet, try this

Lie down or sit in a comfortable chair in a room where you will not get interrupted. Take your shoes off and loosen any tight clothing. Close your eyes and pay attention to your breathing pattern.

Start to breathe slowly and take air down towards your stomach. Hold your breath for four or five seconds, then breathe out slowly, emptying your lungs as far as possible. Repeat in a regular pattern and maintain during the next steps.

After several minutes of concentrating on your breathing start individually tensing each part of your body while breathing in, then hold your breath and muscle tension for ten seconds before breathing out while relaxing your muscles.

Start by tensing your toes, hold your breath for 10 then breathe out while relaxing. Then move onto your feet before moving up to your calves, thighs, buttocks, stomach, arms, shoulders and then your jaw. Finish up by tensing your whole body.

After completing these steps imagine yourself in a place you know well that is calm and peaceful. Try to visualise the place, hear the sounds of it and feel the sensation of being there, all the time keeping your breathing steady. Enjoy as long as you want. When you are ready, tell yourself to open your eyes, while staying relaxed and alert.

Generally paying attention to your breathing is a great way to reduce anxiety and stop it running away with you. A simple breathing technique is to count to three as you breathe in, hold for a second or two, then count to three as you breathe out. Keep this up until your heart rate slows down.

DEALING WITH ACHES AND PAINS

Aches, pains and headaches are caused by increased muscle tension during withdrawal and usually only last for a week or two. They can be eased by:

- warm baths, spas or saunas
- massages from family or friends
- light exercise like walking, swimming or stretches
- medication, such as aspirin and paracetemol, can help but overuse can be dangerous.

MOOD SWINGS

At times you will feel exhausted, lethargic and unmotivated to do anything. At other times you will feel restless, agitated, anxious, irritable, reactive and angry. This is normal in methamphetamine withdrawal.

Being aware that the mood swings are a normal part of withdrawal will help you make sense of how you are feeling. The relaxation techniques described earlier can also help as can regular exercise, a good diet and sleep.

While for the majority of people these mood swings will pass quickly, depression can emerge as a significant problem for some people. If low mood persists past three weeks talk to your GP or other health worker.

Paranoia

Paranoia is not unusual while using methamphetamine but it can also be a problem during withdrawal. Having these thoughts does not mean you are going mad and they will generally fade away as long as you don't use. If they do get worse then you need to talk about them with your GP or another health worker.

Diet

Methamphetamine does nothing for your appetite and many people lose a lot of weight. To help get back on top you need to start to eat well again, preferably fresh fruit, vegetables and lots of protein. A multi vitamin supplement can help get back on top.

It's also good to drink lots of fluids that don't contain caffeine, sugar or alcohol. Drinking a lot of water and fruit or vegetable juices helps flush toxins out through your kidneys.

IT'S TOO HARD

Sometimes withdrawal feels like it will just never end. The end may be two days away or it may be two weeks away but while you are in withdrawal that just seems like forever.

The best way to deal with these thoughts is to stop thinking about the next few days or weeks and focus your thoughts on now. Can I make it to tomorrow without using? If that's too far away, can I get through the next hour without using?

Break up the withdrawal into short periods and deal with each period as it happens.

If you get part way through withdrawal and feel like you can't go on, remind yourself that you have survived the last few days without using. Whatever you have been doing has been working, so keep doing it.

Sometimes to get through these hard times it can be helpful to talk to someone else. This could be your GP, the Alcohol Drug Helpline, a health worker or someone from NA, a peer support group or your local addictions service.

TRAPS

Using alcohol, benzos opiates or cannabis to help you get through withdrawal is really risky. It is very easy to see-saw from one substance to another. Just because alcohol is legal does not mean it is a 'safer' substance to use. Withdrawal is about your body and brain getting back into kilter without having methamphetamine in your system. Using something else instead won't help your body get back to normal.

AFTER WITHDRAWAL

One day you will realise that you feel much better and that you are through the worst of it. It's a good idea to have a plan about how to treat your self for having made it this far, something that does not involve using of course.

Now's the time to think about what to do next. Again it can help to talk to someone else about your options, especially if you want to keep off methamphetamine. This could include seeing a counsellor, talking to friends, family and whānau, going to a peer support group or attending NA. You may decide to go to a rehab or move away from where you have been using and your using associates. It is important to plan your next moves carefully as parts of your life will be very different now you are not using.

What happens if you have a 'slip?'

Giving up methamphetamine is not easy. Staying off is hard and many people have a slip and use at some stage. *This does not mean that they have failed and it is important not to beat yourself up if it happens to you.* A slip is not a landslide and does not mean you have had a relapse to old patterns.

Every slip is an opportunity to learn more about what triggers using for you. With this knowledge you can make changes in your life that help you avoid using in the future. Sometimes it takes more than one go to get it right but it will happen.

Remember if you do use again it will be almost like it was when you first used and it's very easy to overdose, especially if you also use alcohol or other drugs at the same time.

If You Need More Help

The Alcohol Drug Helpline can provide ongoing support and contact details for your nearest Addictions Service

0800 787 797

If you want to get support from NA (Narcotics Anonymous) call

0800 628 632

Worksheets

Worksheet One – Weighing up methamphetamine and stimulant use

Things I like about using methamphetamine and stimulants		Things I don't like about using methamphetamine or stimulants	
	Importance		Importance

Things that would be worse if I did not use methamphetamine or stimulants		Things that would be better if I did not use methamphetamine or stimulants	
	Importance		Importance

On balance my life would be .... if I did not use methamphetamine or stimulants.

Worksheet Two – Identifying your patterns of methamphetamine and stimulant use and your cravings

Over the last few times you used or wanted to use methamphetamine or stimulants:

Where were you?	Who was you with?	Had anything significant happened?	What were you thinking?	What were you feeling?

Behaviours	Physical Feelings	Thoughts

= CRAVINGS

Worksheet Three – Strategies to manage your cravings

High-risk Situations	Cravings Management Plan	Things I will do

Worksheet Four – Activities and treats to enjoy

Day-to-day things that need to get done	Activities to enjoy	Treats
When –	When –	When –
When –	When –	When –
When –	When –	When –
When –	When –	When –
When –	When –	When –

Have a look at this list for some possible ideas what you can do:

Listening to music	Going horse riding	Throwing parties
Playing soccer	Lying in the sun	Going to parties
Playing golf	Talking to others	Exercise
Having a bath	Camping	Having a meal with friends
Going for a swim	Going on holiday	Singing
Going for a job	Going to the beach	Going sailing
Watching a movie	Going fishing	Praying
Watching favourite TV show	Having a relaxed evening	Going to concerts or plays
Going shopping	Debating	Sewing
Going bowling	Going to the zoo/aquarium	Working
Going to church, synagogue, temple, mosque		Working on car/bike
Eating	Reading books	Sex
Going to the gym	Playing board games	Reading poetry
Playing cricket	Volunteering	Cooking
Playing hockey	Having a BBQ	Surfing
Driving	Eating out	Playing video games
Doing jigsaws	Acting	Have coffee at a café
Buying things	Cleaning	Riding bike
Playing basketball	Meditating	Playing pool/billiards
Doing martial arts	Playing with children	Looking at photos
Playing netball	Sleeping	Walking
Visiting family and whānau	Bushwalks	Yoga
Playing volleyball	Playing squash	Going canoeing
Picnics	Playing tennis	Painting/drawing
Playing cards	Gardening	Skating
Discussing politics	Photography	Skiing
Playing with pets	Surfing the internet	Writing
Woodworking	Getting hair done	Reading newspaper
Getting a massage	Kissing	Dancing
Watching a sporting event	Going to museums and galleries	Rock climbing
Hobbies (eg, collecting things)	Doing crosswords, word games	Aquarobics
Going to Garage sales	Playing guitar, drums, keyboard	Listening to the radio

Source: http://www.med.unsw.edu.au/NDARCWeb.nsf/resources/AOD5/$file/Pleasure+and+mastery+worksheet.pdf

Worksheet Five – Relapse Prevention Plan

Early Warning Signs		
High-risk Situations	**Management Strategies**	**Reward**
General strategies to use in an emergency		

Extra skills needed	How to get them

Worksheet Six – Functional analysis

Trigger	Thoughts and feelings	Behaviours	Positive consequences	Negative consequences
What happened before I used?	What was I thinking and feeling?	What did I do as a result?	What good things happened because of using?	What things I didn't like happened because of using?

Worksheet Seven – Safer decision making

Decision	Safer alternative	Riskier alternative

Practice monitoring and recording the decisions, big and small, that you make during the day.

Worksheet Eight – Diaphragmatic or abdominal breathing

When tense, a person's breathing is rapid and shallow, only using the top third of their lungs. When breathing like this too much carbon dioxide is got rid off and this can lead to; light-headedness, breathlessness, feeling of suffocation, blurred vision, and numbness or tingling in hands or feet as well as a hot, flustered feeling. This is called hyperventilation and can lead to constantly feeling anxious and apprehensive and possible panic attacks.

Learning to use more of your lungs, by diaphragmatic/abdominal breathing can reduce the chances of this happening and can stop the cycle of getting tense, breathing shallowly and then feeding the tension with anxiety and so on.

1. Sit as comfortably as possible in a chair or lie on the floor with your head, back and arms supported.
2. Close your eyes if that will help you concentrate.
3. Place one hand on your stomach right beneath your rib cage and the other on your chest
4. Breathe faster and feel how shallow and rapid your breathing is and how only the chest moves as you breathe.
5. Now breathe in deeply and slowly, concentrating on pushing the air as low and deep into your lungs as possible, feeling the hand on your stomach move up as you do it.
6. When you are breathing deeply into your lungs the hand on your chest should hardly move at all.
7. When you have taken a full breath, hold it briefly before breathing out.
8. Keep practising until you think you can do it relatively easily.

How to use abdominal breathing to reduce tension and anxiety:

1. Rate your level of tension and, if you can, count your pulse rate.
2. Breathe into slowly counting to four, before breathing out to the count of four (four seconds in, four seconds out). Repeat this 10 times. Hold the final breath for 10 seconds, and then breathe out.
3. Now re-rate your level of tension and take your pulse rate and see if they have changed.
4. Repeat as necessary.

Controlled breathing can help reduce overall levels of tension when used consciously several times a day. It is also useful when faced with stressful, high-anxiety or high-risk situations when a lapse is possible.

Adapted from: http://notes.med.unsw.edu.au/NDARCWeb.nsf/resources/AOD5/$file/Controlled+abdominal+breathing.pdf