

Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines

Queensland Health

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Queensland
Government

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These guidelines have been adapted from the *Drug and Alcohol Withdrawal Clinical Practice Guidelines – NSW* with the kind permission of the Mental Health and Drug and Alcohol Office, New South Wales Ministry of Health.

The guidelines have been developed to provide clinicians with a comprehensive manual that covers all aspects of withdrawal management.

The guidelines are not intended to replace clinical judgment in individual cases, but they will assist in managing patients safely and effectively.

As with all medical practice, clinicians are encouraged to document decisions made with regard to withdrawal management clearly in the patient's notes.

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1. Introduction

1. Introduction

1.1 Background

The *Queensland Drug and Alcohol Withdrawal Clinical Practice Guidelines* provides the most up-to-date knowledge and current level of best practice for treating withdrawal from alcohol and other drugs, such as benzodiazepines, heroin and other opioids, cannabis, and psychostimulants. The specific problems of polydrug use are also addressed.

Specialist withdrawal services, hospitals, psychiatric units, correctional settings and community health services in the Queensland public health system (including non-government agencies funded by Queensland Health) are recommended to adopt these guidelines.

These clinical practice guidelines update and supersede the *Clinical Protocols for Detoxification in Hospitals and Detoxification Facilities* and *Clinical Protocols for Detoxification in General Practice and Community Settings 2002*.

Drug withdrawal may occur in a predictable way in a withdrawal unit or it may occur unexpectedly in an acute care setting following an unplanned admission. The aim of this document is to assist three broad groups of clinicians to manage drug and alcohol dependent people who are experiencing withdrawal:

1. Specialist withdrawal services that treat individuals on an outpatient and inpatient basis for alcohol and drug withdrawal

2. Hospitals, nursing homes, and other acute facilities that admit patients for primary medical problems and are then faced with an unexpected withdrawal syndrome
3. Primary care clinicians – such as general practitioners, non-government agencies, offender health services and community and welfare services – that deal with people who may experience alcohol and drug problems including withdrawal.

This document includes developments since the previous Queensland detoxification clinical protocols were published in 2002. The main changes and additions are:

- The term ‘detoxification’ is no longer scientifically acceptable and the term ‘withdrawal management’ has been adopted.
- Buprenorphine has been approved in Australia for the treatment of opioid (heroin) withdrawal and maintenance. This is now included.
- Cannabis dependence and cannabis withdrawal have been documented in recent literature and are discussed in these guidelines.

Patient safety is the key concept in the management of withdrawal. These guidelines are designed to allow clinicians to offer safe withdrawal management to dependent individuals.

1. Introduction

1.2 Dependence, tolerance and withdrawal

Withdrawal occurs in alcohol and drug dependent people who stop or considerably reduce their drug use. The diagnosis of dependence is generally required in order to understand and manage drug withdrawal.

1.2.1 ICD-10 definitions

The *International Classification of Diseases, 10th Revision* (ICD-10) contains the following definitions:

Dependence syndrome

This syndrome is a cluster of behavioural, cognitive and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance and, sometimes, a physical withdrawal state.

The dependence syndrome may be present for a specific psychoactive substance (e.g. tobacco, alcohol or diazepam), for a class of substances (e.g. opioid drugs), or for a wider range of pharmacologically different psychoactive substances.

Withdrawal state

A withdrawal state is a group of symptoms of variable clustering and severity occurring on absolute or relative withdrawal of a psychoactive substance after persistent use of that substance. The onset and course of the withdrawal state are time-limited and are related to the type of psychoactive substance and dose being used immediately before cessation or reduction of use.

1.2.2 DSM-IV definitions

The *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) contains the following definitions:

Substance dependence

Substance dependence is a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by 3 or more of the following occurring at any time in the same 12-month period:

- tolerance, as defined by either of the following:
 - a need for markedly increased amounts of the substance to achieve intoxication or the desired effect
 - markedly diminished effect with continued use of the same amount of the substance
- withdrawal, as manifested by either of the following:
 - the characteristic withdrawal syndrome for the substance
 - the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
- the substance is often taken in larger amounts or over a longer period than was intended
- there is a persistent desire or unsuccessful efforts to cut down or control substance use
- a great deal of time is spent in activities necessary to obtain the substance, use the substance or recover from its effects
- important social, occupational or recreational activities are given up or reduced because of substance use
- the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

2. General principles of withdrawal management

2. General principles of withdrawal management

Key points

- Withdrawal management provides an opportunity for engagement, planning and coordination of post-withdrawal care.
- Patients may present for elective withdrawal, present when already in withdrawal (crisis presentation), or commence withdrawal incidentally when in treatment for another condition.
- A comprehensive assessment is the first step in managing the withdrawal process. It will define the risks that will confront the patient by identifying alcohol, drug use and health issues for the patient and it will also identify specific needs that may interfere with successfully completing withdrawal.
- For each drug (prescribed or not) an accurate consumption history should record: the quantity, frequency, duration and pattern of use; time and amount of last use; route of administration; recent pattern leading up to this presentation; and average daily consumption. For prescribed medications, also record the prescribed dose and prescribing doctor.
- Try to match the patient with the withdrawal treatment approach that maximises patient safety and provides the most effective and most resource-efficient options for their management.
- If possible, formalise a treatment agreement with the patient. The agreement may be verbal or written. It should not be used against the patient in a punitive manner.
- Frequent observations of the patient are the mainstay of management. Assessment of clinical features, explanation, reassurance and repeated encouragement are provided at these times.
- Medication is used in withdrawal to provide symptomatic relief, to treat complications and coexisting conditions, and to reduce the intensity of withdrawal.
- The aim of supportive care is to minimise environmental stimuli that may exacerbate withdrawal symptoms and to enhance the patient's ability to complete withdrawal successfully.
- Develop strategies to help the patient cope with the period after withdrawal, particularly if the patient required withdrawal management in hospital. Strategies for discharge should encourage harm reduction and referral to appropriate agencies.
- The withdrawal state from some drugs may be complicated by seizures that may be life-threatening.

2. General principles of withdrawal management

2.1 Rationale and underlying principles for withdrawal management

When a person is dependent on a drug, withdrawal of the drug carries risks of physical harm, psychological trauma and (rarely) death. The aim of withdrawal management is to minimise the risks associated with withdrawal.

The rationale of withdrawal management is to provide the appropriate level of support so that withdrawal can be completed safely, which then allows the individual to determine his or her optimal ongoing management strategy. An understanding of the pharmacology and physiology of withdrawal allows the use of appropriate medications to modify the withdrawal process, making it safer and more tolerable.

Underlying principles:

- While withdrawal management may be an opportunity to initiate lasting abstinence, the primary goal is patient safety, not long-term abstinence.
- Withdrawal management services should not be withheld from people because of doubts about their commitment to long-term abstinence.
- Supportive care and patient choice are crucial to success. Supportive care should include attention to the patient's environment, the transfer of information, reassurance, attention to anxiety, and assistance with the development of coping skills.
- The syndrome of withdrawal should be monitored clinically and appropriate care should be provided. This can range from counselling and support to the use of specific medications to ameliorate symptoms of withdrawal.
- Planning and coordinating post-withdrawal care is an integral part of treatment.

2.2 Presentation for withdrawal management

Patients present for withdrawal management with a mixture of attitudes and emotions. Some present in crisis. They may be suspicious of people in positions of authority as a result of previous experiences in a variety of settings, including the healthcare system. The initial assessment is an important opportunity to begin building an effective therapeutic relationship with the patient.

- Be non-judgmental, empathetic and respectful.
- Listen and clearly elucidate the patient's needs.
- Encourage the patient to actively participate in treatment decisions from the outset.
- Communicate clearly, and allow time for the patient to understand what assistance is being offered and the reasons for it.

It is common for drug-dependent people to present in a state of intoxication (which can complicate assessment and management of withdrawal) or overdose, which can be life-threatening. Both intoxication and overdose may require acute medical care.

See Appendix B for guidelines on assessment and management of intoxication and overdose.

2.2.1 Elective presentations

The objective in managing patients seeking elective withdrawal management is to balance the need for safety with patient choice and desirable outcomes.

In order of priority, this requires:

- identifying withdrawal risks
- assessing psychosocial factors
- matching safety requirements and psychosocial factors to the treatment setting.

2. General principles of withdrawal management

2.2.2 Crisis presentations

(presenting in withdrawal)

Crisis presentations generally involve people who are already in withdrawal. The patient may present to a variety of settings (e.g. emergency department, drug and alcohol unit, psychiatric service, correctional service, emergency accommodation centre, general practitioner or a hospital ward).

The critical issues are:

- prompt identification of the withdrawal
- minimising the risk of complications
- managing withdrawal symptoms
- stabilising medical and psychiatric conditions.

2.2.3 Unplanned withdrawal

Some people in the care of a clinician for reasons other than withdrawal management may begin to undergo withdrawal. These people may be receiving acute care in a hospital or being assisted with psychiatric, medical or surgical problems in other settings.

Assessment for unplanned withdrawal is similar to that for crisis presentations.

Early detection of withdrawal and preventing the risks associated with withdrawal are the key considerations.

The key to effective management is coordinating withdrawal and other clinical care. Withdrawal may increase the expected hospital length of stay of the patient or require their transfer to a more suitable setting.

2.2.4 Information about withdrawal service

Alcohol Drug Information Service (ADIS)

ADIS is a 24-hour, 7-day phone service for people seeking information or assistance with drug or alcohol issues. The telephone line also provides assessment, referral and brief counselling.

Alcohol Drug Information Service (ADIS)

Phone: 1800 177 833

24-hour, 7-day phone service

2.3 Assessment for withdrawal management

2.3.1 Primary aims of assessment

Assessment is the first step in managing drug and alcohol withdrawal. The primary aims are to:

- predict the risks that will confront the patient because of withdrawal
- identify the specific needs of the patient to enhance the likelihood of completing withdrawal (i.e. to match treatment to patient needs)
- begin building a therapeutic relationship with the patient.

Clinicians should:

- take care to ensure that personal values and stereotypes do not interfere with effective assessment of the patient
- explain the purpose of each element of the assessment process to the patient
- seek the active involvement of the patient in planning treatment.

2.3.2 Key elements in assessment

Components of a comprehensive assessment are:

- full drug consumption history
- identifying risks associated with polydrug use

2. General principles of withdrawal management

- identifying history of withdrawal and any associated complications
- medical and psychiatric history
- physical examination
- mental state examination
- appropriate laboratory investigations
- psychosocial assessment to identify expectations, supports, barriers and preferences that may influence withdrawal management
- formulating a management plan.

Psychosocial assessment can be deferred if the patient is unwell, but it will help to plan future care and determine treatment options.

Note: In some circumstances, the advice or assistance of a drug and alcohol specialist – or other specialist – may be required.

2.3.3 Full consumption history

Obtain a description of the patient's consumption over a typical week or month, as there is a degree of correlation between the quantity consumed and the severity of withdrawal.

First, obtain a general history of alcohol and drug use, then attempt to identify daily patterns of alcohol and drug consumption from a retrospective consumption history.

Most people, with or without alcohol and drug problems, are likely to underestimate or estimate inaccurately how much they use if asked the question: 'On average, how much do you use a day or a week?'

Taking a retrospective consumption history

- Always ask about each drug group, for example tobacco, alcohol, opioids, benzodiazepines, cannabis, amphetamines, cocaine and party drugs.
- Start with most recent use. Ask: 'When did you last have anything to drink or use?'

- Ascertain how much was consumed at that time.
- Enquire back through that day: 'What about during the day?'
- Link consumption to activities: 'What were you doing during the day?' Then, for example: 'How much did you drink or use when you went to your friend's house?'
- Examine consumption through each day for the past week.
- Then ask if that was a typical week's pattern. If not, ask specifically how it differed (i.e. how much more or less of each drug than usual).
- Recording a complete consumption history is not always practical because of the context of the presentation, including the physical and mental state of the person in withdrawal.
- A common drug combination that should be noted is alcohol and benzodiazepines. These drugs produce cross-tolerance and regular use of both can make withdrawal more severe and protracted.

Recording consumption history

An accurate consumption history should record for each drug (whether prescribed or not):

- quantity, frequency, duration of use and pattern of use
- time and amount of last use
- route of administration
- recent pattern leading up to this presentation
- average daily consumption
- periods and longest period of abstinence.

For prescribed medications, also record the prescribed dose and prescribing doctor.

2. General principles of withdrawal management

2.3.4 Brief consumption history

If documenting a full consumption history is impractical:

- Obtain whatever substance use history is available from the patient, family, friends or other sources, especially details of the last episode of use.
- Consider the possibility of polydrug use.
- Identify any signs of drug consumption and effects during physical examination.
- Consider urine or blood testing for most patients.
- Take a further consumption history when the patient is stable or when others are able to provide information.

TAKING A RETROSPECTIVE CONSUMPTION HISTORY

- Always ask about each drug group, for example tobacco, alcohol, opioids, benzodiazepines, cannabis, amphetamines, cocaine and party drugs.
- Start with most recent use. Ask: ‘When did you last have anything to drink or use?’
- Ascertain how much was consumed at that time.
- Enquire back through that day: ‘What about during the day?’
- Link consumption to activities: ‘What were you doing during the day?’ Then, for example: ‘How much did you drink or use when you went to your friend’s house?’
- Examine consumption through each day for the past week.
- Then ask if that was a typical week’s pattern. If not, ask specifically how it differed (i.e. how much more or less of each drug than usual).
- Recording a complete consumption history is not always practical because of the context of the presentation, including the physical and mental state of the person in withdrawal.
- A common drug combination that should be noted is alcohol and benzodiazepines. These drugs produce cross-tolerance and regular use of both can make withdrawal more severe and protracted.

2. General principles of withdrawal management

2.3.5 Street names and prices of drugs

Drugs, their street names and their prices vary across the country.

Note: This table should be used as a rough guide only.

Drug	Street names	Approximate street price
Alcohol	grog, piss, cans, six pack, long necks, slabs, casks	N/A
Benzodiazepines	benzos, pills, jack & jills, downers, seras, rowies	Depends on type and dose (mg)
Heroin	smack, hammer, h, gear	\$50 a cap \$400 per gram/weight
Methadone syrup Physeptone tablets	'done	\$1 per mL \$30 per mg
Morphine	greys (100 mg)	MScotin \$25–\$50 for 60 mg \$50–\$100 for 100 mg Kapanol \$25–\$40 for 50 mg \$60–\$100 for 100 mg
Oxycodone Oxycontin	oxy	Oxycontin \$15 for 20 mg \$20–\$30 for 40 mg \$30–\$70 for 80 mg
Buprenorphine	bupe, subbies	Subutex \$15 for 2 mg; \$30 for 8 mg Suboxone \$10 for 2 mg; \$30 for 8 mg
GHB (gamma-hydroxybutyrate)	fantasy, grievous bodily harm, liquid ecstasy, liquid e	\$5 for 1 ml \$25 for a vial
Cannabis/marijuana Implements: bong, cone	grass, pot, gunja, reefer, joint, yarndi, dope	Bush (medium strength): \$25 per gram Hydro (high strength): \$25 per gram
Amphetamines		
Amphetamine/methamphetamine powder	speed, go-ee, uppers, whiz, velocity	\$50 a point (0.1 gram) \$400 per gram
Methamphetamine base (stronger than powder)	base, paste, wax, pure, point, red liquid speed, liquid red, ox blood	\$40–\$80 a point (0.1 gram) \$300 per gram
Methamphetamine ice (stronger than base)	crystal, crystal meth, shabu, yaabaa, point, ice	\$75–100 a point (0.1 gram) \$400 per gram
Cocaine	coke, c, snow, nose candy, okey-doke, crack, free base, blow, snuff	\$120 a point \$350–\$400 per gram N/A
Ecstasy/MDMA (methylenedioxyamphetamine)	xtc, eccy, E, pills	\$25 a tablet \$14/tablet for 100 or more
LSD (lysergic acid diethylamide)	trips, acid, pinges, dingers	N/A
Magic mushrooms	golden top mushrooms, magic mushies	N/A
Ketamine	special k, k, vitamin k	N/A
PCP (phencyclidine)	angel dust, super weed, killer weed	N/A

Sources: Stafford J, Burns L, (2012). *Australian Drug Trends 2011: Findings from the Illicit Drug Reporting System (IDRS). Australian Drug Trend Series No.73.* Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

2. General principles of withdrawal management

2.3.6 Consumption calculations

Alcohol

To calculate consumption of alcohol, record the average daily consumption in grams. The following table gives a guide to the amounts of alcohol contained in common drink measures and containers.

Amounts of alcohol in common drink measures and containers

Alcoholic beverage	Standard drinks
Low-strength beer (2.7% alcohol)	
1 can or stubbie	0.8 standard drinks (8 g alcohol)
285 ml glass	0.6 standard drinks (6 g alcohol)
425 ml glass	0.9 standard drinks (9 g alcohol)
Carton 24 x 375 ml cans/stubbies	19 standard drinks (190 g alcohol)
Mid-strength beer or light beer (3.5% alcohol)	
1 can or stubbie	1 standard drink (10 g alcohol)
285 ml glass	0.8 standard drinks (8 g alcohol)
425 ml glass	1.2 standard drinks (12 g alcohol)
Carton 24 x 375 ml cans/stubbies	24 standard drinks (240 g alcohol)
Full-strength beer (4.9% alcohol)	
1 can or stubbie	1.4 standard drinks (14 g alcohol)
285 ml glass	1.1 standard drinks (11 g alcohol)
425 ml glass	1.6 standard drinks (16 g alcohol)
Carton 24 x 375 ml cans/stubbies	34 standard drinks (340 g alcohol)
Wine (9.5%–13% alcohol)	
100 ml glass	1 standard drink (10 g alcohol)
150 ml glass (average restaurant serve)	1.4–1.6 standard drinks (14–16 g alcohol)
750 ml bottle	7–8 standard drinks (70–80 g alcohol)
4-litre cask	36–43 standard drinks (360–430 g alcohol)
Spirits	
1 nip (30 ml)	1 standard drink (10 g alcohol)
700 ml bottle	22 standard drinks (220 g alcohol)
Pre-mixed spirits (5%–7% alcohol)	
1 can (375 ml)	1.5–2.1 standard drinks (15–21 g alcohol)
1 bottle (275 ml)	1.1–1.5 standard drinks (11–15 g alcohol)

2. General principles of withdrawal management

Benzodiazepines

Note the dose (in milligrams) and the type of each benzodiazepine product used. The following chart is a guide to the absorption rates, elimination half-lives and equivalent daily doses of common benzodiazepines.*

Absorption rates, half-lives and equivalent doses of benzodiazepines

Generic name	Trade name	Time to peak concentration	Elimination half-life†	Equivalent dose‡
Diazepam	Antenex Ducene Valium Valpam	30–90 min	Biphasic: rapid phase half-life, 3 hours; elimination half-life, 20–48 hours	5 mg
Alprazolam	Alprax Xanax Kalma	1 hour	6–25 hours	0.5–1.0 mg
Bromazepam	Lexotan	0.5–4 hours	20 hours	3–6 mg
Clobazam	Frisium	1–4 hours	17–49 hours	10 mg
Clonazepam	Paxam Rivotril	2–3 hours	22–54 hours	0.5 mg
Flunitrazepam	Hypnodorm	1–2 hours	20–30 hours	1–2 mg
Lorazepam	Ativan	2 hours	12–16 hours	1 mg
Nitrazepam	Alodorm Mogadon	2 hours	16–48 hours	2.5–5 mg
Oxazepam	Alepam Murelax Serepax	2–3 hours	4–15 hours	15–30 mg
Temazepam	Euhypnos Normison Temaze Temptabs	30–60 minutes after tablets, 2 hours after capsules	5–15 hours	10–20 mg
Triazolam	Halcion	1–3 hours	Biphasic: rapid phase half-life, 2.5–3.5 hours; elimination half-life, 6–9 hours	0.25 mg
Zolpidem	Stilnox	0.5–3 hours	2.5 hours	Not known

*Based on manufacturer's product information.

†Elimination half-life: time for the plasma drug concentration to decrease by 50%.

‡Equivalent dose: approximate dose equivalent to diazepam 5 mg.

2. General principles of withdrawal management

Opioids

There is a range of opioid drugs that may be used by intravenous, oral or inhalational routes. Opioid drugs, with details of approximately equivalent doses, are as follows.

Opioid drugs and equivalent doses

Generic name	Trade name	Approximately equivalent doses (mg)
Buprenorphine hydrochloride	Subutex Suboxone	0.3
Codeine phosphate	Codeine, Panadeine Forte (+paracetamol) Nurofen Plus (+ibuprofen)	30–60
Diacetylmorphine	Heroin	(converts to morphine)
Fentanyl citrate	Fentanyl	0.1
Methadone	Biodone Forte Methadone syrup Physeptone	Dose equivalence is problematic
Morphine sulfate	Morphine Kapanol (controlled release) MS Contin (controlled release)	10
Oxycodone hydrochloride	OxyContin (controlled release) Endone	4.5

Sources: Katzung BG, (2006). *Basic and clinical pharmacology*. 9th ed. The McGraw-Hill Companies (CIAP), MIMS Online.

Please note that these equivalent doses are only approximate and should not be relied upon in clinical practice.

Heroin

Heroin dosage estimates are difficult because of wide variations in the concentration and purity of (illicit) heroin. Consumption may be recorded as the:

- number of injections per day
- number of grams ingested
- dollars spent.

Note that 'street' usage patterns alter frequently.

As an approximate guide to a patient's level of heroin use, the patient can be considered to be on the low end if they are using:

- one to two injections per day
- 0.5 g or less per day.

Patients can be considered to be high-end if they are using:

- four or more injections per day
- 1–2 g or more per day.

2. General principles of withdrawal management

Cannabis

It's important to identify as accurately as possible the:

- way in which the drug is consumed
- frequency of use
- amount spent per day on cannabis.

Users will usually be able to report how many grams (10–15 cones/gram – more if ‘mulled’ or ‘spun’ with tobacco) they smoke per day. Smoking marijuana cigarettes (rolled with or without tobacco) commonly known as ‘joints’ or ‘spliffs’ is another common mode of use. Heavy users can smoke more than 1 ounce (28 grams) a week.

Illicit psychostimulants in Australia

	Speed	Base	Ice	Cocaine	Ecstasy
Drug	Methamphetamine or amphetamine	Methamphetamine	Methamphetamine	Cocaine hydrochloride	MDMA, or methamphetamine, often with other drugs added to mimic the effects of MDMA
Street names	Go-ee, whiz, velocity	Paste, point, pure, wax	Shabu, crystal, crystal meth, yaabaa	Coke, okey-doke	E, eckie, XTC, pills
Appearance	Fine or coarse powder	Sticky, guggy, waxy or oily form of damp powder, paste or crystal	Crystal or coarse crystalline powder	Crystalline powder	Tablets, powder
Colour	White, pink, yellow, orange, brown	Often has a yellow or brown tinge	Translucent or white; may have green, blue or pink tinge	White	Various
Method of administration	Usually snorted or injected, sometimes swallowed	Swallowed, smoked, snorted, injected	Swallowed, smoked, snorted, injected	Swallowed, snorted, injected	Swallowed, sometimes injected
Place of origin	Most is produced in clandestine laboratories in Australia, some imported	Most is produced in clandestine laboratories in Australia	Most is imported from east and south-east Asia	Imported from South America	Mostly imported; some domestic manufacture in clandestine laboratories
Purchase quantity	Point (0.1 gram), half-gram, gram	Point (0.1 gram); also gram, half-gram	Point, gram	Gram	Pill
Availability	Most widely available form	Widely available (varies between states and territories)	Less available but availability is increasing	Not very available	Availability is increasing, use is dropping

Psychostimulants

Amphetamines are the most frequently used group of drugs in this category.

When you're recording a consumption history, define the route of administration, the specific agents used, and the frequency and pattern of use.

Many street products will not be pure, and urine drug screening is appropriate to document what has been consumed.

Consumption may be recorded as the frequency of administration or as dollars spent.

Below is a summary of the different forms of psychostimulants available on the illicit market in Australia.

2. General principles of withdrawal management

2.3.7 Identifying risks associated with polydrug use

The most frequent comorbid diagnosis among those with dependence on a substance is another substance use disorder (other than nicotine). This can include another dependence. Episodic use of alcohol, opioids and benzodiazepines is more common than consistent and heavy use of more than one drug (and less likely to lead to dependence).

Where polydrug use is likely, obtain advice from, or consider referral to, a specialist drug and alcohol service to assist with assessment.

Managing withdrawal in a person with multiple dependencies requires extra clinical vigilance and consideration of the order in which the withdrawals should be managed.

Although patients seeking treatment may wish to withdraw immediately from all drugs, a stepped approach is preferable in some instances so that withdrawal from one drug at a time can be addressed.

The driving principle in determining the order of withdrawal is to begin with the substance with the potential for the most problematic withdrawal. In most instances, this will be alcohol.

2.3.8 Selective withdrawal

In some cases, selective withdrawal is required in people who have stable dependence on a prescribed treatment such as methadone but who are using other substances in a harmful fashion (e.g. amphetamines or alcohol). For further information on withdrawal from a specific drug or alcohol, see the relevant chapter in these guidelines.

Selective withdrawal while on an opioid treatment program

Patients in an opioid treatment program who are dependent upon other drugs, in particular benzodiazepines, alcohol or psychostimulants, may require assistance to withdraw from those drugs while continuing methadone or buprenorphine treatment.

Unless the patient requires admission to a hospital for withdrawal, the patient's prescriber should take responsibility for coordinating selective withdrawal.

The prescriber should:

- review the patient frequently
- monitor the patient closely for evidence of intoxication with sedative drugs in combination with methadone or buprenorphine
- provide only small quantities of withdrawal medication at a time (preferably daily pick-up of withdrawal medication).

Often, the prescriber will personally manage the withdrawal. If this is not practical, such as in the case of heavy alcohol use and withdrawal, the prescriber will need to work with withdrawal management services in their area.

2.3.9 Identifying history of withdrawal

The likely course of withdrawal may be anticipated from past experiences.

Determine whether there is any history of withdrawal, including complications (seizures, delirium or psychosis), treatments used, and where and when previous withdrawals occurred. Obtain a medical history from the patient, relatives and friends, as well as previous medical records.

2. General principles of withdrawal management

2.3.10 Assessing current withdrawal status

In patients who are in withdrawal at the time of assessment, assess the type and severity of withdrawal symptoms.

Alcohol

Onset: Withdrawal occurs as the blood alcohol level falls, with the symptoms dependent on the rate of fall and the hours since the last drink.

Duration: 3–7 days (up to 10 days in severe withdrawal).

Features: Anxiety; agitation; sweating; tremor; nausea; vomiting; abdominal cramps; diarrhoea; anorexia; craving; insomnia; elevated blood pressure, pulse and temperature; headache; confusion; perceptual distortions; disorientation; and hallucinations. Seizures may occur. These and cerebrovascular effects may be life-threatening.

Benzodiazepines

Onset: 1–10 days (depending on the half-life of the drug).

Duration: 3–6 weeks (may be longer).

Features: Anxiety; headache; insomnia; muscle aching and twitching; perceptual changes; feelings of unreality; depersonalisation; seizures (these can be life-threatening).

Opioids

Onset: 6–24 hours (may be later with longer-acting opioids).

Duration: Peaks 2–4 days, ceases 5–10 days (more prolonged for longer-acting opioids).

Features: Anxiety; craving; muscle tension; muscle and bone ache; muscle cramps and sustained contractions; sleep disturbance; sweating; hot and cold flushes; piloerection; yawning; lacrimation and rhinorrhea; abdominal cramps; nausea; vomiting; diarrhoea; palpitations; elevated blood pressure and pulse; and dilated pupils.

Cannabis

Onset: Within 24 hours, but may be several days in heavy users.

Duration: 1–2 weeks.

Features: Insomnia; shakiness; irritability; restlessness; anxiety; anger; and aggression.

Psychostimulants

Onset: 6–12 hours (cocaine),
12–24 hours (amphetamines).

Duration: Several weeks for withdrawal phase, then months for extinction.

Features: There are three phases to withdrawal. Crash: fatigue, flat affect, increased sleep, reduced cravings. Withdrawal: fluctuating mood and energy levels, cravings, disturbed sleep, poor concentration. Extinction: persistence of withdrawal features, gradually subsiding.

Nicotine

Onset: Within several hours of the last cigarette.

Duration: Peak within the first 24–72 hours and resolves in 2–4 weeks.

Features: Craving; irritability; restlessness; mood swings; increased appetite and hunger; sleep disturbances with resulting insomnia and fatigue; anxiety and depression; and difficulty concentrating.

2.3.11 Physical examination for withdrawal management

The extent of the physical examination will depend on the setting and the assessor.

- Assessment by a medical practitioner should include a full physical examination.
- A nursing examination in a medical setting should include assessment of vital signs and evaluation of the general appearance of the patient. Record pulse, temperature and blood pressure on an appropriate chart or scale to allow monitoring over time.

2. General principles of withdrawal management

- Examination by a non-medical professional should include observation of physical appearance: sweating, tremor, agitation, coordination and gait. Rate these appearances and reassess them at regular intervals to monitor the progress of symptoms. If symptoms are increasing in severity, notify a senior staff member or, if available, a doctor.

2.3.12 Mental health assessment

The high prevalence of dual diagnosis or co-occurring mental health and alcohol and other drug disorders is a significant issue for clinicians in both service sectors. Dual diagnosis is now commonly acknowledged to be the expectation – not the exception – in treatment services. Dual diagnosis is often associated with poor treatment outcomes, more severe illness and high service use, presenting a significant challenge for all service providers.

The *Queensland Health Dual Diagnosis Clinical Guidelines: Co-occurring Mental Health and Alcohol and Other Drug Problems (2008)* provides a basis for assessment, treatment and follow-up of patients who present with a mental health problem associated with their ongoing drug use.

People with dual diagnosis may have a higher level of risk for suicide, self-harm, aggression and violence. Clinicians should undertake a comprehensive and ongoing assessment of an individual's static and dynamic risk factors and identify protective factors.

Suicide risk

Intoxication with drugs or alcohol often precludes a valid immediate assessment. If suicide risk is identified in an intoxicated person, he or she should be detained in an appropriate and safe setting until a full assessment is conducted. Enduring risk cannot be judged until the person is sober. Chapter 6 of the *Queensland Health Dual Diagnosis: Clinician Toolkit* provides an example of a suicide risk assessment guide. This should be used in conjunction with the *Queensland Health Dual Diagnosis Clinical Guidelines: Co-occurring Mental Health and Alcohol and Other Drug Problems (2008)*.

2.3.13 Screening for domestic violence

The domestic violence screening tool is to be used with women aged 16 and over in accordance with Queensland Health procedures for identifying and responding to domestic violence. Helpful information can be found at http://www.qheps.health.qld.gov.au/ed/docs/domestic_violence.pdf

See Appendix E

2.3.14 Psychosocial assessment

Identify and consider the patient's social situation, support systems, preference for treatment, capacity to undertake withdrawal and the likely success of treatment.

This assessment helps the process of developing an agreed treatment plan with the patient. Discussing these issues and seeking the patient's participation in developing their treatment plan will improve their compliance with treatment and increase the chances of successful withdrawal.

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Psychosocial factors affecting withdrawal

Ask the patient about their expectations of withdrawal:

- reasons for presenting for withdrawal management at this time
- past experiences of withdrawal
- current knowledge and fears of withdrawal
- perceived ability to cope with withdrawal and its treatment.

Ask the patient about the support they have for withdrawal treatment:

- stability of accommodation
- the extent and suitability of the patient's social network
- supportive family and friends
- the patient's links with local health professionals
- the patient's own strengths.

Ask the patient about the potential barriers they might face to successfully withdraw:

- distance to nearest clinician
- access to transport
- relationship issues
- care of children
- drug use of cohabitants
- current legal issues
- financial problems
- work commitments.

2.3.15 Child protection

On initial assessment, during treatment and at discharge, it is important to consider the safety, welfare and wellbeing of any children in the patient's care. This may include a patient's own children, children living at the same residence, or children to whom the patient has access.

The Protecting Queensland Children: Policy Statement and Guidelines on the Management of Abuse and Neglect in Children and Young

People (0–18 years) reflects Queensland Health's commitment to its staff and to children and young people who are at risk of harm, and their families. Section 20 of this document outlines that all staff who are involved in counselling or treating people with alcohol or other drug use issues need to be proactive in making routine enquiries about their capacity to cope with the care of their children.

Queensland Health has instigated mandatory reporting requirements for all relevant health professionals in relation to notifying suspicions of abuse or neglect of children and young people. Expert advice regarding the risk to children with whom the individual lives, or has close contact with, can be sought from child protection advisors and dedicated child protection liaison officers within each health service district. Further information can be sought at <http://qheps.health.qld.gov.au/csu/policy.htm>.

2.3.16 Formulating the management plan

Summarise the patient's overall assessment and identify:

- potential risks to the patient during withdrawal
- problems and barriers that may prevent the patient completing withdrawal
- interventions that have been indicated by the assessment.

Recording the main issues identified in the assessment helps continuity and quality of care when more than one clinician is involved.

Link the assessment to a treatment plan that addresses:

- management of withdrawal
- setting for withdrawal
- follow-up and communication with other relevant service providers and agencies.

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2.4 Treatment-matching for withdrawal management

The overriding priorities for managing withdrawal are:

- **Safety:** No treatment can be recommended that is not safe for that patient.
- **Outcome:** Treatments should only be recommended if they are likely to succeed.
- **Choice:** Patients have the right to choose from the treatment options that are available and considered appropriate by the clinician. They should be advised as to the suitability and availability of services.

Try to match the patient with the treatment intervention that maximises their safety and provides the most effective and most economical options for withdrawal management.

Always consider ambulatory withdrawal management as the first option. This can include the patient at home and supported by visits to the clinic, visits from the clinician, or by telephone calls.

Ambulatory management is contraindicated if:

- the safety of the person or others in the household would be at risk
- the likelihood of a successful outcome is poor
- the person will not agree.

The original setting for withdrawal management may become inappropriate for the needs of the patient. Re-evaluate the setting as part of the ongoing assessment of patients in withdrawal. When indicated, transfer the patient to a more suitable treatment setting (either more or less intensive) as soon as possible.

Only refer the patient to hospital when withdrawal may be complicated by its severity or other medical or psychiatric problems, or when no other suitable option is available.

2.4.1 Special groups

The following groups of people may have special needs: culturally and linguistically diverse populations; young people; Aboriginal and Torres Strait Islander people; women (especially in pregnancy); people with a mental illness; older people who present to health services involuntarily; people residing in rural and remote locations; people living with HIV/AIDS; people belonging to particular religious groups; and people in custody. Withdrawal services must consider the needs of these specific groups of patients and seek further information from relevant Queensland Health documents or services.

Pregnant women

Pregnant women who present intoxicated or with symptoms consistent with drug withdrawal may require inpatient admission to an appropriate facility to assess maternal health and safety, foetal wellbeing and to comprehensively assess their alcohol and drug use to plan and further manage their care.

General considerations and assessment

Once it is established the woman requires drug withdrawal management, assess or investigate each of the following:

- general health, physical consequences of substance use, nutritional status, perfusion, infection risk and risk of injury or further substance-related harm
- mental health state and other psychological factors
- pregnancy gestation and an assessment of her obstetric history and present needs
- foetal wellbeing

2. General principles of withdrawal management

- quantity and frequency of substances used since the woman's last menstrual period date
- current substance use and method of administration, including the amount and time of last use
- knowledge of possible pregnancy effects from continued substance use and from abruptly quitting
- access to supportive family members and non-using friends
- dependant children, their safety and need for temporary childcare.
- Regularly monitor for withdrawal symptoms.
- Moderate the woman's withdrawal symptoms with suitable medication as required – use a reducing medication regime when there is a risk that acute physical symptoms could develop.
- Administer dietary and vitamin supplementation required.
- If admission is not in a specialist withdrawal facility, consider developing a care plan between the woman and the facility that addresses limiting visitors and time out of the ward, stopping tobacco use and that secures the woman's assurance to take only hospital-prescribed medication.

Setting

Determine the most suitable location for the pregnant woman's withdrawal management. Consider:

- Gestation:
 - Women with a first trimester pregnancy or a pregnancy of less than 20 weeks gestation may not require admission into a maternity facility.
 - Women with an advanced pregnancy, a pregnancy complication or those not accessing antenatal care may require admission into a maternity facility.
- Type of drug withdrawal:
 - A slow medication reduction (for example coming off benzodiazepines) could be conducted as an outpatient, provided the woman's general considerations are met and she agrees to a regular prescriber review.

Withdrawal management plan and care

- Respond to the woman's physical health requirements.
- Respond to the woman's mental health needs.
- Undertake regular foetal (cardiac) monitoring and obstetric liaison throughout the woman's admission (if not in a maternity setting) as appropriate for gestational age.

Antenatal care

- Confirm pregnancy and gestation.
- Ensure a maternity hospital booking or referral is in place.
- Initiate antenatal blood tests and other investigations – including sexual health – if not already done. (See *Royal Australian and New Zealand College of Obstetrics and Gynaecology Guidelines*.)
- Ensure effective communication between agencies involved in the woman's care.

After-withdrawal management

Consider the following after-withdrawal management for the pregnant woman:

- referral to a specialist team for drug relapse prevention
- a short-term rehabilitation program
- assertive follow-up for antenatal care and substance use treatment
- ongoing assessment around potential child safety concerns
- preparation for the baby's birth and home environment, and social and parenting supports

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- referral for follow-up treatment for the baby if it was exposed to substances in-utero
- educate about Sudden Infant Death Syndrome (SIDS) and safe sleeping guidelines. See the SIDS and Kids website: <http://www.sidsandkids.org/safe-sleeping/>

Psychiatric illness

- Get any available information on the patient's mental health before his or her withdrawal.
- Assess the possibility of psychological symptoms emerging or being exacerbated.
- Check the availability of community psychiatry or consultation liaison services.
- Consider the possible need for withdrawal management in a psychiatric hospital.

Older people

Be aware of the:

- possibility of concomitant illnesses
- potentially longer period of use or dependence
- vulnerability if admitted to a unit with predominantly younger people
- difficulties with mobility, including increased risk of falls
- communication issues, e.g. decreased hearing
- increased risk of delirium.

Young people

Consider:

- their need to use the least restrictive setting
- their risk of exposure to other forms of drug use – e.g. information and other patients – in certain settings
- the availability of appropriate liaison staff
- their vulnerability in residential settings.

Cultural issues

Consider:

- the availability of appropriate liaison staff
- the availability and use of interpreters
- the cultural aspects that may affect setting, expectations, importance of family, follow-up and other issues.

2.5 Treatment agreements

Encouraging patients to participate in treatment choice enables their views to be considered and increases the awareness of both the patient's and the clinician's responsibilities.

If possible, formalise a treatment agreement with the patient. The agreement may be verbal or written. The acknowledgement of a verbal agreement should be recorded in the notes.

Make the patient aware of their responsibilities and the responsibilities of their service provider. Be specific about expectations for feedback and how complaints will be managed.

Address any failure to follow the agreement by re-evaluating the management plan in consultation with the patient.

Do not set up an agreement so that it can be used against the patient in a punitive manner. Failing to follow an agreement is not in itself sufficient grounds for discharge from care.

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RECOMMENDED POINTS IN A TREATMENT AGREEMENT:

- Identify the patient and clinic or medical practitioner.
- Specify the date or period of treatment, nature of the treatment (e.g. ambulatory alcohol withdrawal management), special requirements (e.g. daily attendance at outpatient clinic), any prescribed medications, and the role of the patient or carer (e.g. completion of withdrawal chart).
- List the identified risks to the patient.
- Identify special steps intended to enhance the likelihood of completing withdrawal, including transportation arrangements and supportive care protocol.
- Detail conditions under which urgent contact should be made with the medical practitioner, and provide contact numbers and emergency procedures.
- Indicate agreed strategies for managing the period after withdrawal.

2.6 Treating withdrawal

This section outlines the principles of treating withdrawal. Details of managing withdrawal from specific drug types are given in later chapters.

2.6.1 Monitoring

Frequent observations of the patient are the mainstay of management. Assessment of clinical features, explanation, reassurance and repeated encouragement are provided at these times.

The frequency of observations and evaluation of progress will depend on the severity of withdrawal and the setting.

2.6.2 Pharmacological treatment

Medication is used in withdrawal to provide symptomatic relief, to treat complications and coexisting conditions, and to reduce the intensity of withdrawal symptoms.

The choice of pharmacological treatment in withdrawal is guided by the severity of withdrawal and the drug from which the patient is withdrawing. Certain medication regimens should only be prescribed when appropriately trained staff are available to supervise and monitor the outcome.

2.6.3 Routine supportive care

The aim of supportive care is to minimise environmental stimuli that may exacerbate withdrawal symptoms and to enhance the patient's ability to complete withdrawal successfully.

Use a protocol for supportive care (*see Appendix F*), particularly for managing withdrawal in hospital and residential settings. The supportive care routine should go hand-in-hand with monitoring of physical signs.

Anxiety and depression are commonly associated with drug dependence and withdrawal and can be managed effectively with supportive care. They may be part of a more pervasive disorder, but this cannot be determined until the withdrawal syndrome subsides. Usually, the need for specific treatments for anxiety and depression is reassessed 2 to 4 weeks after withdrawal.

2. General principles of withdrawal management

Key elements of supportive care

Information about what to expect can allay a patient's fear and anxiety. Studies show patients who are given information will have lower withdrawal scale scores than those who are not. Information given to the person in withdrawal should include:

- orientation to the setting and primary caregiver
- a description of the likely course of withdrawal
- the likely length and intensity of withdrawal symptoms
- the support plan for withdrawal and afterward
- the risks and benefits associated with withdrawal.

The environment can have a significant effect on the severity of withdrawal. Minimise stress by making sure the environment is quiet, calm, home-like, not overly bright, without striking colours or patterns, safe and private.

Attention to the environment also includes considering the person's physical comfort by making adjustments to position, pillows and blankets when necessary. Hot packs, hot spa baths and massages can also relieve aches and increase comfort.

Reassurance is probably the most effective intervention in reducing the severity of withdrawal symptoms. Reassurance might be achieved through allaying concerns and fears, encouragement, feedback on progress, regular contact, providing information and dealing with immediate social and family problems. Reassuring family members will help them provide support to the patient during withdrawal. Active participation and support by family members is likely to be significant in the completion of withdrawal.

Coping skills, such as relaxation techniques, dietary guidelines, sleep hygiene, and methods to reduce craving (*Appendix G*) should be introduced to the patient.

2.6.4 Managing difficult behaviour

Difficult behaviour is a significant barrier to successful withdrawal. Adherence to appropriate protocols will minimise the risk. This is more of a problem in general hospital settings where close links between general staff and drug and alcohol staff will be required to prevent difficult behaviour from escalating.

Key elements of managing difficult behaviour

Anxiety, agitation and panic:

- Approach in a calm and confident manner.
- Reduce stimulation and the number of people attending the patient.
- Explain interventions carefully.
- Minimise the risk of self-harm.

Confusion, disorientation and hallucinations:

- Provide frequent reality orientation.
- Ensure frequent supervision.
- Explain perceptual errors.
- Ensure the environment is simple, uncluttered and well-lit.
- Protect the patient from self-harm and prevent them from harming others.

Anger and aggression:

- Use space to protect yourself.
- Remain calm and reassuring.
- Do not challenge the patient.
- Acknowledge the patient's feelings.
- Remove the source of anger, if possible.
- Be flexible, within reason.

2. General principles of withdrawal management

2.6.5 Driving

Most withdrawal involves some psychomotor impairment, psychological disorder or fatigue. Clinicians responsible for withdrawal management must ensure patients are adequately informed of the symptoms they may experience, the effects these may have on driving skills and the increased risk of being involved in an accident. There might be civil liabilities if, as a result of impaired driving while medically unfit, a patient causes a road accident. Withdrawal could be considered a condition that renders an individual 'medically unfit'.

Special warning: fitness to drive

Patients in an ambulatory or home-based withdrawal setting or who are leaving an inpatient setting should receive an information card regarding their fitness to drive.

Primary responsibility to assess fitness to drive and to inform patients of the potential risk rests with the medical officer, but other health professionals involved in care and case management are also responsible for advising patients not to drive if there is any doubt about their fitness to do so at that time.

In addition to penalties under legislation, patients may be liable at common law if they continue to drive knowing that they have a condition likely to adversely affect their driving.

Failure to report this may also breach the terms of their insurance.

There may be circumstances, such as a patient's failure to report a medical condition, where a medical professional is required to report a patient as unfit to drive to the Driver Licensing Authority because of a known impairment and a subsequent risk to road safety.

2.7 HIV, hepatitis B and hepatitis C screening

Queensland Health now expects all alcohol and drug services to take responsibility for discussing blood-borne viruses and the risk of acquisition with their patients. Either at the assessment interview or after treatment has commenced, all patients should be offered screening for HIV, hepatitis B and hepatitis C, and advised on the availability of hepatitis B vaccination.

- Tests should only be undertaken when patients have voluntarily agreed to such testing and at an appropriate time in the withdrawal process – not in the acute phase.
- To help patients to make a decision regarding testing, give them enough information to allow them to give informed consent and assure them that confidentiality will be maintained.

If patients elect to undergo these tests, pre-test and post-test discussion must be provided as outlined in the National Hepatitis C Testing Policy (May 2007) available at <http://www.health.gov.au/internet/publications/publishing.nsf/Content/phd-hepc-manual-toc~phd-hepc-manual-ch4~phd-hepc-manual-ch4-2>

Assessing fitness to drive

Further information is available in: 'Assessing Fitness to Drive for Commercial and Private Vehicle Drivers', *Medical Standards for Licensing and Clinical Management Guidelines – a Resource for Health Professionals in Australia*, March 2012

www.austroads.com.au

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2.8 Continuing care

2.8.1 Discharge planning

Develop strategies to help the patient cope with the period after withdrawal, particularly if the patient required withdrawal management in hospital. Discharge planning begins with the initial assessment for withdrawal management.

Involve patients in discharge planning and make them fully aware of their options. Part of this participation is identifying support that can be called upon by the patient after withdrawal. It should be the clinician's responsibility to ensure patients are aware of options to seek further assistance in the future. If a patient agrees to a follow-up option, the clinician should make professional contact with that service to facilitate the referral process.

Patients have the right to refuse further follow-up. If this occurs, note the refusal in the patient's record and avoid judgmental reactions.

Document discharge planning in the patient record.

When planning a patient's discharge, consider:

- the stability of their accommodation: does the person live alone or with others who use drugs?
- the extent of their social circle: do they have existing links with health professionals in their local community?

Key requirements of planning discharge from withdrawal management:

- organise or facilitate follow-up appointments
- actively refer patient to services providing on-going counselling, therapy and support services, including residential or non-residential rehabilitation services and self-help facilitation groups
- communicate with other relevant service providers
- provide emergency assistance numbers.

When people complete withdrawal from drugs or alcohol it can be frustrating for them, their health care workers, partners, family and friends if follow-up help is delayed. There is no easy answer to this difficult issue, but good information about what to expect can help people prepare for the procedures and delays ahead. Effective networking between withdrawal management units and other services can reduce these delays. Sending people to services without informing the service first can be a waste of time.

Aftercare

Aftercare services might include: skills training (for example, relapse prevention), problem-solving skills or vocational skills training; social support services and self-help groups; or booster motivational counselling sessions. Supportive care should be offered after finishing withdrawal treatment.

Counselling and group programs

Counselling is an important option to consider when continuing care for someone who has completed withdrawal. A range of free or fee-charging services are provided by government, non-government and private organisations.

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Self-help programs

There are several self-help programs modelled on the 12-step program developed originally by Alcoholics Anonymous (AA). Such programs include Narcotic Anonymous (NA), Al Anon (for people affected by someone else's use), Gamblers Anonymous, and so on. They are based on the belief that total abstinence is the only way to recovery. People interested in these need to be motivated to attend meetings and become part of the program. There is no formal referral process to specific AA or NA programs, but patients can be advised to make contact with a functioning group in their area. This free resource to the community should be discussed with patients who want to maintain abstinence.

QuIHN (Queensland Injectors Health Network) is a peer-based organisation that provides support and information for injecting drug users.

Pharmacotherapies

There is a range of pharmacotherapies available for people completing drug and alcohol withdrawal. Opioid treatment pharmacotherapies—including methadone, buprenorphine (Subutex), buprenorphine and naloxone (Suboxone), and naltrexone—are discussed in *Queensland Opioid Treatment Program: Clinical Guidelines 2012*.

Alcohol pharmacotherapies include naltrexone, acamprosate and disulfiram. The pharmacology of these agents needs to be understood before they are recommended.

Rehabilitation programs

Government and private rehabilitation programs include residential and non-residential programs. The length, philosophy, cost, assessment procedures, target groups (and exclusions) and support afterward all vary.

As with most service providers, the agencies will want to speak to the person being referred before they offer a place.

Programs run for periods ranging from three weeks to longer than a year. There are waiting lists, sometimes long, for most services. Information about rehabilitation services is available through the Alcohol and Drug Information Service (ADIS).

3. Alcohol

3. Alcohol

Key points

- Patients admitted to hospitals or presenting to the emergency department should undergo screening at admission to identify those at risk of alcohol withdrawal, since 20–30 per cent of all general medical inpatients have underlying alcohol problems and, in 5–20 per cent, alcohol is the cause of the underlying medical condition.
- Anyone who reports alcohol consumption in excess of the *Australian Guidelines to Reduce Health Risks from Drinking Alcohol (2009)* should be considered at risk of withdrawal. They should be asked about features of dependence, particularly previous withdrawal, and they should be monitored with an alcohol withdrawal rating scale.
- About 95 per cent of alcohol-dependent people can stop drinking without suffering major withdrawal, such as delirium and seizures.
- The risk of major withdrawal is greater in people who have acute medical conditions, for example trauma or sepsis.
- Onset of alcohol withdrawal is usually 6–24 hours after the last drink. Generally, withdrawal resolves after 2–3 days without treatment. Occasionally, withdrawal may continue for up to 10 days.
- Seizures affect about 5 per cent of patients, occurring early (usually 7–24 hours after the last drink). They are grand mal in type – that is, generalised, not focal – and usually occur as a single episode.
- Delirium tremens – ‘the DTs’ – is the most severe form of alcohol withdrawal and is a medical emergency. It usually develops 2–5 days after stopping or significantly reducing alcohol consumption. The usual course is 3 days, but can be up to 14 days.
- The *Clinical Institute Withdrawal Assessment for Alcohol, Revised Version (CIWA-AR)* is a valid, reliable and sensitive instrument for assessing the clinical course of simple alcohol withdrawal. The Alcohol Withdrawal Scale (AWS) is another useful scale. The use of either scale is supported.
- Supportive care alone is often effective in minor alcohol withdrawal.
- Diazepam is the pharmacotherapy of choice for alcohol withdrawal. Diazepam treatment is best initiated early in the course of alcohol withdrawal to prevent progression to more severe withdrawal. Diazepam loading is recommended for inpatient settings, and tapering diazepam for outpatient settings.
- All people being treated for alcohol withdrawal should routinely receive thiamine for prophylaxis against Wernicke’s encephalopathy. Thiamine should initially be given intramuscularly or intravenously.

3. Alcohol

3.1 Use and effects of alcohol

At low doses, alcohol causes loss of emotional restraint, vivaciousness, feeling of warmth, flushing of skin and mild impairment of judgment. As blood alcohol levels increase, speech becomes slurred and the intoxicated person begins losing motor control. At higher levels, memory is affected and the person becomes stuporous and unable to be aroused. Coma and death can, rarely, ensue.

3.2 Assessment issues specific to alcohol-dependent patients

Practice tip: general assessment for withdrawal is detailed in section 2.3.

Record average daily consumption in grams of alcohol (see table page 12) or standard drinks (see table below).

The patient may be intoxicated on presentation, and this may affect their ability to provide and receive information.

Standard alcoholic drinks

Alcoholic beverage	Standard drinks
Low-strength beer: 2.7% alcohol	
1 can/stubbie	0.8 standard drinks
285 ml glass	0.6 standard drinks
425 ml glass	0.9 standard drinks
Carton 24 x 375 ml cans	19 standard drinks
Mid-strength beer/light beer: 3.5% alcohol	
1 can/stubbie	1 standard drink
285 ml glass	0.8 standard drinks
425 ml glass	1.2 standard drinks
Carton 24 x 375 ml cans	24 standard drinks
Full-strength beer: 4.9% alcohol	
1 can/stubbie	1.4 standard drinks
285 ml glass	1.1 standard drinks
425 ml glass	1.6 standard drinks
Carton 24 x 375 ml cans	34 standard drinks
Spirits	
1 nip (30 ml)	1 standard drink
700 ml bottle	22 standard drinks
Pre-mixed spirits: 5–7% alcohol	
1 can (375 ml)	1.5–2.1 standard drinks
1 bottle (275 ml)	1.1–1.5 standard drinks
Wine: 9.5–13% alcohol	
100 ml glass	1 standard drink
150 ml glass (restaurant)	1.5 standard drinks
750 ml bottle	7–8 standard drinks
4-litre cask	36–43 standard drinks

See Appendix B for a guide to managing intoxication and overdose.

Assessment of intoxicated individuals is difficult but should be pursued as far as is possible. Assessment findings may be reviewed after signs of intoxication have abated.

Intoxication may be a contraindication for admission for withdrawal management. Some dependent people may present for withdrawal management with a high blood alcohol level, but without intoxication. This is not a contraindication to admission.

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3.2.1 Unplanned withdrawal

Patients admitted to hospitals or presenting to the emergency department should undergo screening at admission to identify those at risk of alcohol withdrawal.

The standard method of screening is to take a drinking history. Anyone who reports alcohol consumption in excess of the *Australian Guidelines to Reduce Health Risks from Drinking Alcohol (2009)* should be considered at risk of withdrawal. They should be asked about features of dependence, particularly prior withdrawal, and they should be monitored with an alcohol withdrawal rating scale.

Heavy drinkers are often reluctant to disclose their drinking and will seriously under-report their level of consumption. General hospital staff need to maintain an index of suspicion, and be alert to the possibility that someone who reports only modest or no drinking is, in fact, alcohol dependent.

Particular issues that should raise the possibility that someone is a dependent drinker are:

- a presenting condition or previous diagnosis of an alcohol-related disease, e.g. alcoholic hepatitis, alcoholic cardiomyopathy and pancreatitis
- stigmata of chronic liver disease, including prominent facial capillaries, spider naevi and palmar erythema
- blood tests showing raised serum gamma-glutamyl transferase (GGT), aspartate transaminase (AST) or raised mean corpuscular red cell volume (MCV)
- symptoms such as anxiety, agitation or confusion, or other clinical features that might be due to an alcohol withdrawal syndrome.

In hospitalised patients, early detection and treatment to prevent the development of withdrawal is the optimal approach.

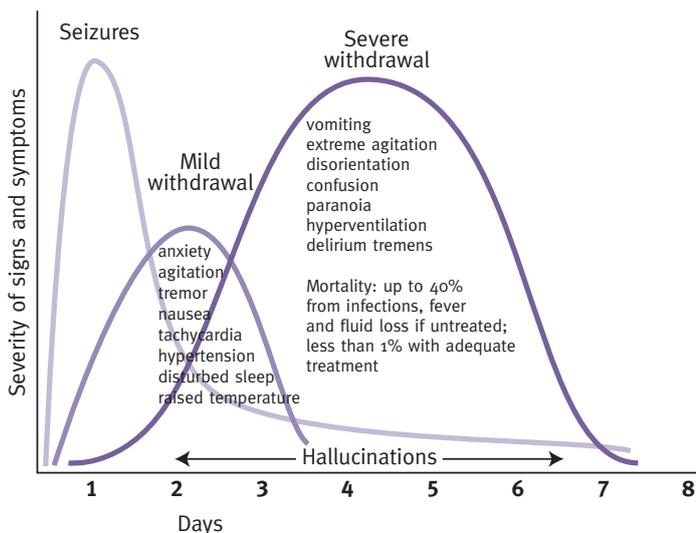
3.3 Alcohol withdrawal

3.3.1 Onset and duration

Onset of alcohol withdrawal is usually 6–24 hours after the last drink. Consuming benzodiazepines or other sedatives may delay the onset of withdrawal. In some severely dependent drinkers, simply reducing the level of consumption may precipitate withdrawal, even if they have consumed alcohol recently. Usually, withdrawal is brief, and resolves after 2–3 days without treatment. Occasionally, withdrawal may continue for up to 10 days.

Withdrawal can occur when the blood alcohol level is decreasing, even if the patient is still intoxicated.

Course of alcohol withdrawal



Adapted from Frank L, Peard J, (1995). *New Concepts in Drug Withdrawal: a resource handbook*. Victoria. Reproduced with permission.

3. Alcohol

3.3.2 Signs and symptoms

The signs and symptoms of alcohol withdrawal can be grouped into three major classes.

Main signs and symptoms of alcohol withdrawal

Autonomic overactivity	Gastrointestinal	Cognitive and perceptual changes
Sweating Tachycardia Hypertension Insomnia Tremor Fever	Anorexia Nausea Vomiting Dyspepsia	Anxiety Vivid dreams Illusions Hallucinations Delirium

Seizures occur in about 5 per cent of people withdrawing from alcohol. They occur early, usually 7–24 hours after the last drink, are grand mal in type – that is, generalised, not focal – and usually occur as a single episode.

Delirium tremens – ‘the DTs’ – is the most severe form of alcohol withdrawal syndrome, and is a medical emergency. It usually develops 2–5 days after stopping or significantly reducing alcohol consumption. The usual course is 3 days, but can be up to 14 days. Its clinical features are:

- confusion and disorientation
- extreme agitation or restlessness – the patient often requires restraining
- gross tremor
- autonomic instability (e.g. fluctuations in blood pressure or pulse), disturbance of fluid balance and electrolytes, hyperthermia
- paranoid ideation, typically of delusional intensity
- distractibility and accentuated response to external stimuli
- hallucinations affecting any of the senses, but typically visual (highly coloured, animal form).

3.4 Monitoring

Withdrawal scales provide a systematic measure of the severity of uncomplicated withdrawal by recording changes in the severity of clinical features over time.

The *Clinical Institute Withdrawal Assessment for Alcohol, Revised Version (CIWA-AR)* has been shown to be a valid, reliable and sensitive instrument for assessing the clinical course of simple alcohol withdrawal (see Appendix H). The Alcohol Withdrawal Scale (AWS) is a useful scale (see Appendix I) and is widely used in Queensland. The use of either scale is supported. With either scale, the presence of co-morbid conditions may alter the results and this should be taken into account during the assessment of the patient.

Withdrawal scales do not diagnose withdrawal. They are merely guides to the severity of an already diagnosed withdrawal syndrome.

Re-evaluate the patient regularly to ensure that it is alcohol withdrawal and not another underlying co-morbid condition that is being monitored, particularly if the patient is not responding well to treatment.

3.4.1 Routine observations during withdrawal

If possible, regular and frequent observations are recommended. At a minimum, these should include:

- temperature, pulse rate and blood pressure
- CIWA-AR or AWS
- level of hydration.

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3.5 Treatment

3.5.1 Supportive care

Supportive care alone is often effective in minor alcohol withdrawal.

See section 2.6.3 and *Appendix F* for more specific detail.

3.5.2 Medication

A long-acting benzodiazepine (diazepam) is the treatment of choice for alcohol withdrawal.

Contraindications to diazepam include respiratory failure, significant liver impairment, and possible head injury or stroke. In these situations, specialist consultation is essential. Advice can be sought from local Alcohol, Tobacco and Other Drug Services (ATODS) or Hospital Alcohol and Drug Service (HADS), if required.

HADS: Phone 07 3646 8704

Local ATOD service: *see Appendix C*

Diazepam treatment is best used early in the course of alcohol withdrawal to prevent progression to more severe withdrawal. The three most commonly used approaches are:

- **Tapering dose regimens:** This is where a predetermined dose of diazepam is administered in tapering doses over 2–6 days (recommended for all settings).
- **Symptom-triggered sedation:** This is where doses of diazepam are administered according to the severity of withdrawal symptoms.

- **Diazepam loading:** This involves giving a large dose on day 1, then no further diazepam (only recommended in the inpatient setting).

Other symptomatic treatments

- For headache, consider administering paracetamol.
- For nausea or vomiting, consider metoclopramide (Maxolon®) 10 mg every 4–6 hours or prochlorperazine (Stemetil®) 5 mg every 4–6 hours orally or intramuscularly. Reduce the dose rate to 8 hourly as symptoms abate.
- For diarrhoea, consider loperamide or Kaomagma.

Never give alcohol to relieve withdrawal symptoms. It is not a safe medication and its use falsely suggests to the patient that alcohol has clinical benefit for them.

Control of medication in the outpatient setting

It is optimal to supply only 24 hours of medication at a time, as self-medication presents a risk during alcohol withdrawal, particularly when there is minimal supervision. Inform patients of the risks of self-medication – for example, overdose, undiagnosed complications and failure to complete withdrawal – or of mixing alcohol with medication.

3.5.3 Preventing dehydration

In some cases, dehydration may be serious and require aggressive fluid replacement:

- assess and record nutritional intake, fluid intake and output
- encourage oral rehydration
- monitor carefully for signs of dehydration.

In severe withdrawal:

- intravenous rehydration, 2–5 litres per day may be required
- monitor urea and creatinine, electrolytes, liver function and clotting.

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3.5.4 Routine prevention of Wernicke’s encephalopathy

This acute neurological syndrome caused by thiamine deficiency can complicate withdrawal or present in the continuing drinker. It is characterised by confusion, ataxia, ophthalmoplegia, nystagmus and global memory impairment. Untreated, it can progress to Korsakoff’s psychosis, which may result in permanent cognitive damage. It can be prevented in heavy or dependent alcohol users by good nutrition and by the early routine use of parenteral thiamine in all patients presenting to drug and alcohol clinical services.

All people being treated for alcohol withdrawal in the ambulatory setting should routinely receive prophylactic thiamine, 100 mg intramuscularly on day 1 and then (unless contraindicated) a minimum of 100 mg orally TDS. In suspected Wernicke’s, give 100 mg thiamine TDS intramuscularly or intravenously for 3–5 days and then switch to 100 mg TDS orally.

Consider using higher doses still (up to 300 mg t.d.s intramuscularly or intravenously for 3–5 days, then oral) for probable Wernicke’s, along with high-dose oral supplementation of C and other B vitamins. Treatment should continue until the patient has been sober for a month.

Administer thiamine before giving glucose in any form. A carbohydrate load in the presence of thiamine deficiency risks precipitating Wernicke’s encephalopathy.

3.5.5 Ambulatory withdrawal treatment

Explain to the patient and the carer:

- expected symptoms and course of withdrawal
- possible complications and measures that should be taken if complications do arise
- the medication (diazepam) to be used, its side effects (mainly sedation) and the risks of combining it with alcohol, i.e. poor

coordination, disinhibition, respiratory depression, impaired driving capacity.

The standard therapeutic regimen involves regular and reducing doses of diazepam over 2–6 days. Diazepam should not normally continue past the sixth day.

On the first morning, assess the patient for early withdrawal symptoms, intoxication or alcohol consumption in the past 8 hours. Intoxication or alcohol consumption within the past 8 hours are contraindications to commencing treatment. Prescribe diazepam, to begin after the patient arrives home from attending the consultation.

A medical practitioner or drug and alcohol nurse should see the patient each day for the first 3 or 4 days. Additional telephone contact in the first 1 or 2 days may be helpful. Tailor the diazepam dose to the patient’s needs — the aim is to control withdrawal symptoms without over-sedation.

The medical practitioner or drug and alcohol nurse should continue daily or second daily contact with the patient until withdrawal is completed.

An example of a diazepam regimen for alcohol withdrawal in an ambulatory setting

Day 1	Diazepam 10 mg 6-hourly
Day 2–3	Diazepam 5–10 mg 8-hourly
Day 4	Diazepam 5 mg morning and night

Tapering doses may be required over the next 2 days.

3.5.6 Treatment in a hospital or specialist residential setting

Specialist residential settings are indicated when moderate or severe withdrawal is predicted, the patient has a past history of seizures, or the patient has multiple drug dependencies or other significant medical problems.

Treatment in hospital is indicated when the patient has concurrent illness that increases the risks associated with withdrawal or when there is a high risk of severe withdrawal complications.

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Overview of alcohol withdrawal treatment for a specialist residential or hospital setting

Diazepam loading regimen:

On development of withdrawal symptoms, initiate the diazepam loading: 20 mg initially, increasing to 80 mg over 4–6 hours, or until the patient is sedated. (Medical review is required if dose required exceeds 80 mg.)

Symptom-triggered sedation:

Mild withdrawal

(CIWA-AR score <10; AWS score <4):

- Provide supportive care, with observations 4-hourly.
- If sedation is necessary, give 5–10 mg oral diazepam every 6–8 hours for the first 48 hours.

Moderate withdrawal

(CIWA-AR score 10–20; AWS score 5–14):

- A medical officer should assess the patient.
- If alcohol withdrawal is confirmed, hourly observations are required. Give 10–20 mg oral diazepam immediately; repeat 10 mg diazepam hourly or 10–20 mg every two hours until the patient achieves good symptom control (up to a total dose of 80 mg).
- Repeat the medical review after 80 mg of diazepam and, if patient is not settling, consider olanzapine 5–10 mg.

Severe withdrawal

(CIWA-AR score >20; AWS score >14):

- Urgent management is required. Give a loading dose.
- Review more frequently until score falls.
- A rising score indicates an urgent need for more aggressive management.

3.6 Special issues

3.6.1 Seizures

When there is a history of withdrawal seizures, early treatment with diazepam is indicated – either diazepam loading or 40 mg on day 1.

Prophylactic treatment with anti-convulsants such as carbamazepine and sodium calproate has no benefit in preventing alcohol withdrawal seizures.

If a seizure occurs, medical assessment is required to exclude other contributing factors (e.g. head injury or electrolyte disturbances).

3.6.2 Delirium tremens

Delirium tremens is a medical emergency that requires hospital treatment in a high dependency unit.

Isolated delirium tremens is rare and delirium occurring in the context of alcohol withdrawal often has multiple causes. Screen for other factors contributing to delirium, in particular:

- subdural haematoma
- head injury
- Wernicke’s encephalopathy
- hepatic encephalopathy
- hypoxia
- sepsis
- metabolic disturbances
- intoxication with or withdrawal from other drugs.

Major psychotic disorders can sometimes mimic this state.

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Management of established delirium tremens

Patients in delirium tremens are mentally disordered, and it is not acceptable to allow them to sign themselves out of hospital. It is often more appropriate to manage them under the provision of the *Guardianship and Administration Act 2000 (Qld)* rather than the *Mental Health Act 2000 (Qld)*.

Sedation

Sedation with benzodiazepines should be initiated, but is often insufficient to reverse delirium tremens.

If patients will not or cannot take diazepam orally (20 mg hourly, up to 80 mg total dose), use an intravenous midazolam infusion (5 mg bolus, then commence infusion at 2 mg/hr, titrating rate of infusion against response). Midazolam infusion must be monitored either by a special nurse or in a high dependency unit. Intramuscular lorazepam 2 mg is an alternative to midazolam if no high dependency unit is available. Aim to have the patient in a state resembling light sleep, from which he or she can be readily aroused.

Once loaded with benzodiazepines (either by intravenous infusion or oral diazepam), olanzapine 5–10 mg delivered sublingually (wafer) is indicated if the patient is not settled.

Occasionally, patients need doses of diazepam greater than 80 mg to achieve sedation. However, high doses of benzodiazepines can themselves produce a delirium, so specialist assessment and review is required.

Thiamine

Intravenous thiamine, at least 100 mg three times daily, should be administered.

Supportive management

Supportive management includes:

- intravenous fluid and electrolyte replacement, if required
- restraints in line with local policy, if required

- monitoring for infection or other medical problems.

One-on-one nursing care may be required for a period to re-orient the patient.

Hallucinations

If treatment is required for hallucinations, the drug of first choice is diazepam. Add olanzapine if hallucinations do not respond to diazepam alone.

If olanzapine is required:

- the patient should already be receiving diazepam, which will reduce risks of seizures or dystonic reactions
- the starting dose may be between 5 mg and 10 mg, orally or buccally (wafer)
- if there is no response and no undue side effects, an additional dose may be administered
- doses are ordered as required and should be under constant review
- due to the risk of over-sedation, parenteral diazepam and parenteral olanzapine are not to be given within a short time of each other.

3.6.3 Management of withdrawal with intercurrent illness

Alcohol withdrawal is more difficult to manage in the presence of intercurrent illness. In particular, decompensated liver disease and respiratory disease can make management of withdrawal very difficult.

Loading doses should not be used in patients with severe chronic airflow limitation.

Benzodiazepines need to be used with caution and with close monitoring. If a high-dependency unit is available, an intravenous midazolam infusion is the best way to control withdrawal. Alternatively, a short-acting benzodiazepine such as temazepam or oxazepam may be used cautiously, with close monitoring of respiration.

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Drug withdrawal regimens have to be modified when the patient has severe liver disease. Long-acting benzodiazepines should not be administered to patients who have jaundice, ascites or hepatic encephalopathy. In these instances, oxazepam – which is renally excreted with no active metabolites – may be used with caution.

3.6.4 Pregnancy

A pregnant woman at risk of alcohol withdrawal will be admitted into hospital at any gestation due to the additional risks to her health and that of her foetus at this time, as well as her longer-term health and social support needs.

Risk of alcohol withdrawal can be suspected when a woman reports drinking around six standard drinks or more on most days and/or symptoms of neuroadaptation are reported.

Considerations for pregnant women withdrawing from alcohol

Pregnant women require:

- close observation using a validated withdrawal scale
- nursing and medical care to reduce the risk of complications for them and their unborn babies
- a five-day inpatient stay after the onset of withdrawal
- nutritional intervention including:
 - thiamine (continue to term)
 - folate replacement (minimum 400 mcg daily and continue to term)
 - iron levels assessment
 - assessment for other dietary needs.

A reducing diazepam regime may be given to control alcohol withdrawal symptoms.

After withdrawal management:

- Recommend and support ongoing abstinence during pregnancy and lactation.

Pharmacotherapy to maintain abstinence from alcohol cannot be recommended during pregnancy due to insufficient safety data.

Foetal and neonatal effects

Alcohol is a teratogen and the major risk to the foetus from exposure to maternal alcohol use is foetal alcohol syndrome (FAS). In addition, if the woman drinks heavily before the birth, the baby is at risk of neonatal withdrawal. Onset of withdrawal for the newborn may begin 24–48 hours after birth, depending on the time of the mother's last drink, and may require management by a specialist neonatal unit. Babies born to women who have consumed alcohol regularly during pregnancy should be carefully assessed for foetal alcohol spectrum disorders (FASD) by a paediatrician aware of the maternal drinking history.

3.7 Continuing care

Successful withdrawal management should not be seen as an end in itself. All individuals should be encouraged to consider the range of relevant options to help them maintain their abstinence or maintain a more controlled drinking pattern.

For general information on continuing care, see section 2.

4. Benzodiazepines

4. Benzodiazepines

Key points

- Therapeutic dependence is best managed by very slow withdrawal, supervised by a single prescriber, usually the patient's general practitioner.
- Polydrug or illicit benzodiazepine dependence should not be managed by general practitioners but should be referred to specialist services for assessment.
- Benzodiazepine withdrawal is usually mild, however severe or sudden withdrawal can result in significant risk of seizures.
- Withdrawal onset occurs 2–5 days after stopping, reaching a maximum on days 7–10, and usually abating by the end of the second or third week. The half-life of the benzodiazepine involved determines the onset of symptoms.
- Abrupt withdrawal after benzodiazepine treatment may result in rebound anxiety and insomnia. The symptoms are generally the same as those for which benzodiazepines were initially prescribed.
- Withdrawal is best managed by having clear program rules, effective patient communication, stabilisation, and progressive withdrawal with a long-acting benzodiazepine that is dispensed in appropriate instalments to minimise diversion or prescriptions running out early.

4. Benzodiazepines

4.1 Use and effects of benzodiazepines

Benzodiazepines are effective anxiolytic medications. They are also effective amnesic agents, especially in high doses. People using high doses may be seeking a combination of these effects to provide an emotional blockade against previous psychological trauma.

Benzodiazepines, especially at high doses, may have a disinhibitory effect.

Tolerance to the different effects of benzodiazepines develops at different rates. For example, rapidly developing tolerance of

the anticonvulsant effects explains why these drugs are not used for prophylactic treatment. Tolerance of the sedative effects begins after 2 or 3 days and is significant by 2–3 weeks.

Isolated intoxication with benzodiazepines presents with:

- sedation from which the individual may be roused in response to stimulation, but with rapid relapse when not stimulated
- slurred speech and drooling
- loss of balance and coordination (ataxia) often associated with stumbling (gait disturbance)
- disinhibition.

Absorption rates, half-life and equivalent daily doses of common benzodiazepines*

Generic name	Trade name	Time to peak concentration	Elimination half-life†	Equivalent dose‡
Diazepam	Antenex Ducene Valium Valpam	30–90 min	Biphasic: rapid phase half-life, 3 hours; elimination half-life, 20–48 hours	5 mg
Alprazolam	Alprax Xanax Kalma	1 hour	6–25 hours	0.5–1.0 mg
Bromazepam	Lexotan	0.5–4 hours	20 hours	3–6 mg
Clobazam	Frisium	1–4 hours	17–49 hours	10 mg
Clonazepam	Paxam Rivotril	2–3 hours	22–54 hours	0.5 mg
Flunitrazepam	Hypnodorm	1–2 hours	20–30 hours	1–2 mg
Lorazepam	Ativan	2 hours	12–16 hours	1 mg
Nitrazepam	Alodorm Mogadon	2 hours	16–48 hours	2.5–5 mg
Oxazepam	Alepam Murelax Serepax	2–3 hours	4–15 hours	15–30 mg
Temazepam	Euhypnos Normison Temaze Temtabs	30–60 minutes after tablets, 2 hours after capsules	5–15 hours	10–20 mg
Triazolam	Halcion	1–3 hours	Biphasic: rapid phase half-life, 2.5–3.5 hours; elimination half-life, 6–9 hours	0.25 mg
Zolpidem	Stilnox	0.5–3 hours	2.5 hours	Not known

*Based on manufacturer's product information.

†Elimination half-life: time for the plasma drug concentration to decrease by 50%.

‡Equivalent dose: approximate dose equivalent to diazepam 5 mg.

4. Benzodiazepines

4.2 Assessment issues specific to benzodiazepine-dependent patients

Practice tip: general assessment for withdrawal is detailed in section 2.3.

4.2.1 Patterns of use

The critical issue at assessment is to attempt to classify patients according to whether they are dependent on therapeutic doses of benzodiazepines, or are intermittent or regular high-dose benzodiazepine users (usually in the context of dependence on, or use of, multiple drugs).

Therapeutic dependence

Many people take prescribed benzodiazepines for many years, without dose escalation, prescribed from a single doctor or practice, usually for management of anxiety or insomnia. Although they do not appear to have marked problems in relation to benzodiazepine use, such patients often have great difficulty stopping. Withdrawal avoidance and the return of the initial presenting symptoms (e.g. insomnia) are the major reinforcers of continued use in this group.

The risks associated with therapeutic dependence are poorly defined, although there have been suggestions that long-term use of benzodiazepines in the elderly is associated with an increased rate of cognitive decline that may mimic dementia, and an increased risk of falls and fractures.

In this group, withdrawal may produce more distress and problems than continuing on a long-term stable dose. The benefits of attempting withdrawal need to be set against the risks of continued prescribing. If the doctor and patient agree that an attempt to withdraw should be made, it should be undertaken very slowly. Support is essential during this time, with regular monitoring and review, advice on strategies for optimising sleep, and ways of controlling anxiety.

Problems with multiple drug use and multiple prescribers

Benzodiazepines may be sought after by some people who use high doses or multiple drugs. There is a brisk black market for benzodiazepines, and some people often obtain prescriptions from multiple doctors.

Prescribing benzodiazepines to people who are polydrug users poses serious risks. Patients may be highly skilled at obtaining scripts and present a range of plausible and compelling reasons why they should receive benzodiazepines – of which the most common is that they are benzodiazepine-dependent, and at risk of seizures if not prescribed benzodiazepines.

Prescription Shopping Information Service Phone 1800 631 181

Doctors who are registered with Medicare Australia's Prescription Shopping Information Service can phone the service to find out if a patient has been identified under the prescription shopping project's criteria, and obtain information on the amount and type of PBS medicine recently supplied to that patient. This can help to identify patients who are prescription shopping.

www.medicareaustralia.gov.au/providers/programs_services/pbs/prescription_shop.htm

In seeking to manage these patients, there is a difficult trade-off between the risks of trying to stabilise the patient by prescribing benzodiazepines (thereby placing patients at risk of overdose, prolonging the problem and adding to the pool of black market drugs), or not intervening and placing the patient at risk of major withdrawal. There are no easy answers to the problem; clinical judgment must prevail. Clinical reasoning should be documented clearly.

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Other paths to benzodiazepine dependence

Some patients who are not polydrug users are prescribed benzodiazepines and rapidly escalate the use of these drugs. Obtaining scripts from multiple doctors and taking doses equivalent to more than 40 mg diazepam per day can be common. In general, these patients should be managed in the same way as outlined for a patient with polydrug use.

Some patients, often older people with alcohol dependence, become dependent on benzodiazepines, sometimes prescribed initially for alcohol withdrawal management, but then continued indefinitely, usually at therapeutic doses, from a single prescriber or practice. Such patients require careful assessment over time to determine whether prescribing benzodiazepines is more beneficial or harmful.

Prescribing benzodiazepines does not consistently protect against relapse to alcohol dependence, and should be stopped if the patient regularly relapses while taking benzodiazepines.

Some people with histories of multiple drug dependence appear to evolve into therapeutic benzodiazepine dependence, taking a stable, therapeutic dose from a single prescriber.

A good principle if prescribing long-term benzodiazepines, especially when there is a history of other drug dependence, is that patients should be reviewed periodically by a specialist to provide a second opinion. This is important because patients often form close, dependent relationships with their doctors, making it harder for doctors to review and change treatment.

4.3 Withdrawal

4.3.1 Incidence of benzodiazepine withdrawal

Patients vary in the rate of developing dependence. In general terms, the risks of dependence increase with the duration of treatment and the dose and half-life of the benzodiazepine being used. Even low-dose benzodiazepine consumption may lead to dependence, with perhaps 10 per cent of people developing withdrawal after 6 weeks. After 3–12 months, 15–50 per cent may have developed tolerance and are likely to experience withdrawal. After 12 months, the risk of dependence does not seem to rise further, affecting perhaps 50 per cent of users, depending on dose and half-life.

Abrupt withdrawal from high dose use (>50 mg diazepam or equivalent per day) without withdrawal symptoms has been observed, but the incidence is unknown. High-dose use is more likely to produce withdrawal with more severe symptoms.

4.3.2 Onset and duration of benzodiazepine withdrawal

Onset occurs between 2–5 days after stopping, reaching a maximum on days 7–10, and usually abating by the end of the second or third week. Withdrawal may occur earlier or later, depending on the half-life of the benzodiazepine involved. Residual symptoms of anxiety and insomnia may be reported for up to a year after withdrawal.

4.3.3 Signs and symptoms of benzodiazepine withdrawal

Most patients discontinuing benzodiazepines experience a degree of rebound anxiety and insomnia. Specific withdrawal symptoms are subjective, with few observable signs (see table next page). In diagnosing withdrawal, the

4. Benzodiazepines

sequence of the emergence of symptoms and the presence of symptoms such as perceptual abnormalities (visual, auditory, tactile) helps to diagnose benzodiazepine withdrawal.

4.4 Monitoring

Benzodiazepine withdrawal scales (see below) offer a systematic measure of the severity of withdrawal. The most commonly used is the CIWA-B (see Appendix H). When used, they should be a guide to complement clinical assessment.

Good assessment and clinical judgment remain the gold standard for guiding management, and clinicians should not rely on withdrawal scale scores alone.

4.5 Treatment

Generally, therapeutic dependence should be managed by the patient's general practitioner.

However, it is not recommended that general practitioners attempt to manage benzodiazepine withdrawal in polydrug users or prescribe benzodiazepines for these patients even as a temporary measure.

The general principles governing benzodiazepine prescribing in primary care settings are:

- Do not prescribe for patients not known to you.
- Do not prescribe benzodiazepines for polydrug users (if concerned, these patients can be referred for specialist assessment).
- Do not prescribe benzodiazepines for patients on methadone or buprenorphine (refer to their prescriber).
- If you are in any doubt about a patient or think they may have therapeutic dependence, register with the Prescription Shopping Information Service and check whether they are obtaining prescriptions from other doctors. www.medicareaustralia.gov.au/providers/programs_services/pbs/prescription_shop.htm

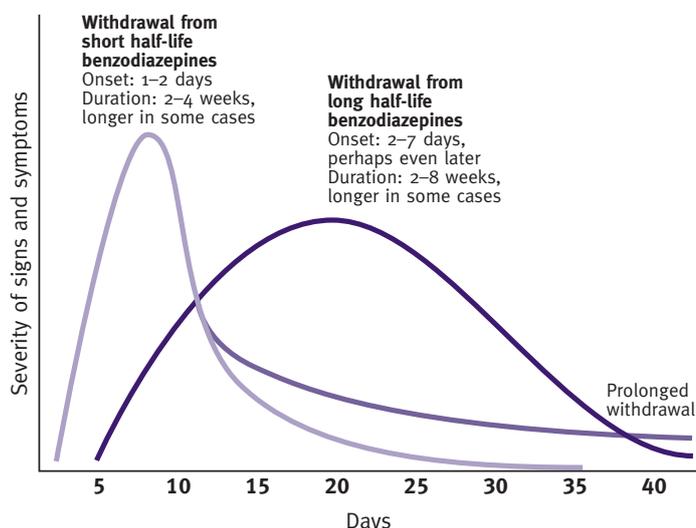
Signs and symptoms of benzodiazepine withdrawal

Common	Less common	Uncommon
Anxiety	Nightmares	Delusions
Insomnia	Agoraphobia	Paranoia
Restlessness	Feelings of unreality	Hallucinations
Agitation	Depersonalisation	Seizures
Irritability	Panic attacks	Persistent tinnitus
Poor concentration	Nausea, dry retching, decreased appetite, weight loss, sweating	Confusion
Poor memory	Lethargy	
Depression	Increased sensory perception	
Muscle tension, aches and twitching	Aches and pains, headaches	
	Palpitations	
	Tremor	
	Blurred vision	
	Increased temperature	
	Ataxia	
	Gastrointestinal unrest	
	Menstrual changes	

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It is not a matter of urgency to prescribe benzodiazepines to manage withdrawal, as the onset of withdrawal symptoms tends to be delayed. The onset of benzodiazepine withdrawal is earlier, and symptoms are more severe, in people taking short half-life benzodiazepines. With longer acting drugs, withdrawal symptoms may begin as late as 7–10 days after discontinuing use.

Course of benzodiazepine withdrawal



Adapted from Frank L. Peard J, (1995). *New Concepts in Drug Withdrawal: a resource handbook*. Victoria. Reproduced with permission.

4.5.1 Treatment setting for benzodiazepine withdrawal

An ambulatory setting is preferred except when:

- the safety of the patient would be at risk (e.g. documented history of seizures, alcohol dependence or significant mental illness)
- the patient reports very high doses of benzodiazepine use (>50 mg diazepam equivalent)
- the likelihood of a successful outcome is poor in an ambulatory setting (such as a repeated inability to complete outpatient reductions, other drug use or an unstable social environment)

- the patient will not consider withdrawal in an ambulatory setting.

Ambulatory withdrawal is most suitable for low-dose users, except when repeated attempts at withdrawal have failed. Ambulatory withdrawal is also suitable for high-dose users who have been stabilised on a reduction regimen (e.g. as an inpatient).

Specialist inpatient withdrawal should be considered for stabilising high-dose users on a reduction regimen, and patients who use benzodiazepines in combination with alcohol, older people, and patients with other illnesses (especially psychiatric disorders). Withdrawal can then be completed as an outpatient over a period of months.

General hospital withdrawal is rarely necessary unless specialist withdrawal facilities are unavailable (e.g. in a rural setting).

4.5.2 Withdrawal management

Withdrawal is best managed by:

- establishing a good therapeutic relationship with the patient
- initial stabilisation of dose (preferably with a long-acting benzodiazepine)
- gradual dose reduction.

Flexibility is essential. The risks associated with trying various approaches and being adaptable to the patient's withdrawal needs are low, and the advantages of developing an individualised treatment regimen are great.

Withdrawal symptom reduction is usually achieved by the careful, flexible, tapered withdrawal of the drug.

Generally, there is a trade-off between rapid withdrawal – with intense, relatively short-duration symptoms – and slower withdrawal, which has protracted, less intense symptoms.

4. Benzodiazepines

4.5.3 Unplanned withdrawal

Patients in hospital for other reasons may undergo benzodiazepine withdrawal from even low doses of regular, long-term benzodiazepine use. This can be a particular problem in older patients, who may develop delirium due to benzodiazepine withdrawal.

For hospitalised patients:

- Take a history of benzodiazepine use.
- Do not abruptly discontinue benzodiazepines, even at low doses, because of the risk precipitating withdrawal in unwell patients and older people. Generally, maintain benzodiazepine use at preadmission levels for therapeutic dependence. Hospitalisation and sickness make a very poor context for initiating elective withdrawal.
- Patients taking high doses or polydrug users should be stabilised on a long-acting benzodiazepine (preferably diazepam), at a dose about 40 per cent of their regular intake before admission (or 80 mg/day, whichever is lower). Reduction and withdrawal should follow once their other medical condition has been dealt with.

4.5.4 Managing benzodiazepine withdrawal in polydrug-dependent patients

At assessment, it is important to obtain a detailed history of benzodiazepine use, accepting that it may not be accurate. Overestimation is common. In assessing tolerance, many users will report levels of use associated with intoxication and sedation. This is far in excess of what is required to avoid withdrawal.

Endeavour to find corroborative evidence (e.g. hospital admissions with seizures) rather than accepting the history, and maintain awareness that in managing benzodiazepine dependence in the setting of polydrug

use, safety (not symptoms) is the key. For every polydrug-using patient requesting benzodiazepines, the clinician must judge whether it is safer to prescribe or not prescribe. The important issue is not to add to the pool of benzodiazepine use.

If withdrawal management is to be offered, it should be on an ambulatory basis. Sometimes, a brief period of admission for stabilisation may be helpful.

It is important to provide clear information that the aim of treatment is to produce safe stabilisation and progressive dose reduction. This does not mean patients will feel comfortable or asymptomatic. Switching to a long-acting benzodiazepine (usually diazepam) and using only one benzodiazepine are important steps to minimise risks during withdrawal. Patients may be adamant that shorter-acting preparations are the only ones acceptable or efficacious. Clinicians should not support the ongoing prescription of these drugs, which contribute to more severe withdrawal and are more likely to be misused and diverted.

The medication should be supplied as tablets to be taken under supervision daily. They should not be taken away.

If patients stabilise on a dose in the range of 40–80 mg of diazepam daily, withdrawal should be at the rate of at least 5 mg per week until the dose reaches 40 mg, then 2.5 mg/week. At this rate, reducing from 80 mg diazepam will take nearly six months. A maximal rate of withdrawal would be to reduce the dose by 10 mg at weekly intervals until 40 mg, then by 5 mg at weekly intervals. This will take 12 weeks.

During withdrawal, patients should be monitored with clinical reviews and by checking the Prescription Shopping Information Service.

4. Benzodiazepines

4.5.5 Pregnancy

The recommended management of a benzodiazepine-dependent pregnant woman is transfer to a long-acting benzodiazepine (diazepam) and gradual dose reduction, with a view to being drug-free at the baby's birth. While this is the ideal goal of treatment, clinicians must work individually with each woman to set goals that are achievable for her.

Pregnant women who have a history of regular benzodiazepine use and who require antenatal admission should continue to reduce their medication and be provided with psychosocial support during the admission.

For those women who are prescribed benzodiazepines to treat medical or psychiatric conditions, consultation with the prescribing doctor is essential to provide effective management of these conditions during the antenatal period.

Babies born to benzodiazepine-dependent women should be observed for one week in hospital before discharge, and should have an outpatient review weekly during the first month of life. The Finnegan scale may be used to identify neonatal abstinence syndrome associated with benzodiazepines.

4.6 Continuing care

See section 2 for general advice on continuing care after withdrawal.

The experience of most clinicians is that many patients find it challenging to adhere to treatment plans, and they may continue to seek and obtain additional benzodiazepines.

5. Opioids

5. Opioids

Key points

- The onset and duration of withdrawal from opioids depends on the half-life of the drug being taken. For heroin and other short-acting opioids, the onset of subjective symptoms of withdrawal is usually 6–24 hours after the last dose, reaches a peak at 24–48 hours and resolves after 5–10 days. For methadone and other long-acting opioids, onset is usually 36–48 hours after the last dose. The peak severity of withdrawal from methadone tends to be considerably lower than for heroin withdrawal, but withdrawal is more prolonged, with a debilitating low-grade withdrawal lasting 3–6 weeks.
- Daily review may include monitoring symptoms with the use of withdrawal scales such as the Subjective Opioid Withdrawal Scale and Objective Opioid Withdrawal Scale.
- Buprenorphine is the principal treatment option for managing opioid withdrawal. It is preferable to commence buprenorphine dosing after the onset of withdrawal symptoms. Using buprenorphine gives the patient the opportunity to continue in maintenance treatment if requested.
- During the first week of treatment, care options after withdrawal should be discussed with the patient. These include abstinence (with or without self-help or residential support) or continuing with buprenorphine treatment.

5. Opioids

5.1 Use and effects of opioid drugs

Opioids that bind to receptors and activate them are referred to as agonist drugs (such as morphine and methadone), and those that bind to receptors but do not activate them are called antagonists (such as naloxone and naltrexone). Partial agonists (buprenorphine) bind to the same receptors but have less of an activation effect.

Opioid agonist drugs have a range of pharmacological actions:

- analgesia (particularly for relieving the affective component of pain)

- a sense of wellbeing (euphoria)
- sedation
- central nervous system depression, particularly respiratory depression (in high doses)
- pupil constriction
- reduced pulse and blood pressure.

Administering opioids may produce side effects:

- nausea and vomiting
- constipation
- increased sweating
- decreased sexual function (impotence).

Opioid drugs and equivalent doses

Generic name	Trade name	Approximately equivalent doses (mg)
Buprenorphine hydrochloride	Subutex Suboxone	0.3
Codeine phosphate	Codeine, Panadeine Forte (+paracetamol) Nurofen Plus (+ibuprofen)	30–60
Diacetylmorphine	Heroin	(converts to morphine)
Fentanyl citrate	Fentanyl	0.1
Methadone	Biodone Forte Methadone syrup Physeptone	Dose equivalence is problematic
Morphine sulfate	Morphine Kapanol (controlled release) MS Contin (controlled release)	10 10
Oxycodone hydrochloride	OxyContin (controlled release) Endone	4.5

Sources: Katzung BG (2006) *Basic and Clinical Pharmacology*, 9th edition, The McGraw-Hill Companies [CIAP]; MIMS online (2006) [CIAP].

Caution: These equivalent doses are approximate only and further advice should be sought before transferring individuals from one drug to another.

5. Opioids

5.2 Assessment issues specific to opioid-dependent patients

Practice tip: general assessment for withdrawal is detailed in section 2.3.

5.2.1 Assessing opioid dependence

The presence of opioid dependence as defined by DSM-IV indicates the likelihood of opioid withdrawal developing.

The patient's prior experience of withdrawal can indicate how severe withdrawal is likely to be. Heroin users may exaggerate their drug use or withdrawal severity out of anxiety and in the hope of receiving sufficient medication to alleviate their expected symptoms.

Therefore, any history should be supplemented with physical examination and with regular monitoring and review during withdrawal management.

Heroin dosage estimates are difficult because of wide variations in the concentration and purity of illicit heroin. Consumption may be recorded as:

- the number of injections per day
- the number of grams ingested
- dollars spent.

Note that street usage patterns alter frequently.

Approximate guide to a patient's level of heroin use

A patient is considered to be on the low end of heroin use if he or she uses:

- one to two injections per day
- 0.5 g or less per day.

A patient is considered to be on the high end of heroin use if he or she uses:

- four or more injections per day
- 1–2 g or more per day.

Increasing numbers of patients with opioid dependence are often using diverted pharmaceutical opioids, particularly in

non-metropolitan settings, where heroin is less available. Generally they are using morphine SR or oxycodone preparations, prepared for injection by disrupting and crushing the original preparations and dissolving the contents in water. Thus a patient may state they are using 'a grey' each day (100 mg morphine SR – MS Contin). A similar assessment process is used to that outlined above.

The patient may be intoxicated on presentation, and this may affect his or her ability to provide and receive information.

See *Appendix B* for a guide to managing intoxication and overdose.

Assessment of intoxicated individuals may be difficult, and assessment findings should be reviewed after signs of intoxication have abated.

5.2.2 Unplanned withdrawal

Patients in hospital, prison or other institutional care may undergo unplanned opioid withdrawal.

Patients may not always reveal their use of opioids. Indicators of the possibility of unplanned opioid withdrawal include:

- track marks in the typical venous access sites
- repeated requests for analgesia or specifically for opioid drugs, in excess of what would be expected from the patient's clinical circumstances.

Methadone or buprenorphine treatment may be required to prevent withdrawal while other medical or psychiatric disorders are managed. If so, advice can be sought from a drug and alcohol specialist with experience in methadone or buprenorphine prescribing.

Patients who are opioid tolerant are likely to require higher than usual doses of analgesic drugs to achieve reasonable levels of pain relief.

5. Opioids

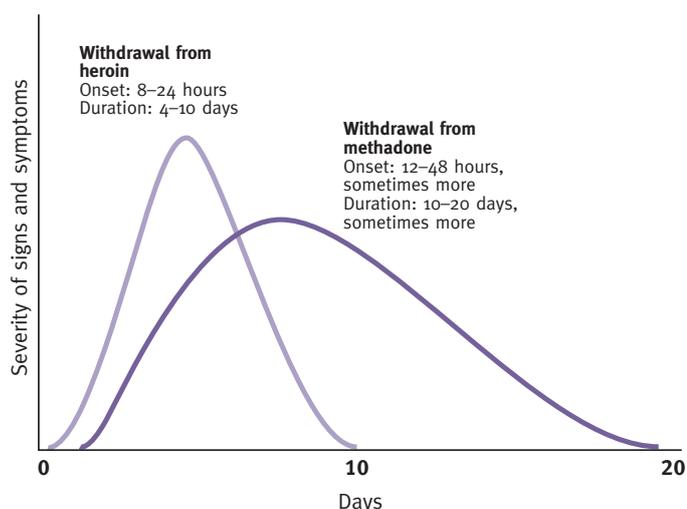
5.3 Withdrawal

5.3.1 Onset and duration of withdrawal

Heroin is a relatively short-acting drug. Symptoms of withdrawal usually commence 6–24 hours after the last dose, reach a peak at 24–48 hours, and resolve after 5–10 days.

Withdrawal from a long-acting opioid such as methadone or controlled release pharmaceutical opioids usually commences 24–48 hours after the last dose. The peak severity of withdrawal tends to be lower than for heroin withdrawal, but withdrawal may be more prolonged, lasting 3–6 weeks.

Course of opioid withdrawal



Adapted from Frank L. Peard J, *New Concepts in Drug Withdrawal: a Resource Handbook*. ©1995. State of Victoria. Reproduced with permission.

The symptoms and signs of withdrawal from buprenorphine are similar to those found in withdrawal from other opioids, but withdrawal from buprenorphine is generally milder than withdrawal from methadone or heroin because of its slow dissociation from the opioid receptor. Symptoms generally commence within 3–5 days of the last dose and can last for several weeks.

5.3.2 Signs and symptoms of opioid withdrawal

Signs	Symptoms
Restlessness	Anorexia and nausea
Yawning	Abdominal pain
Perspiration	Hot and cold flushes
Rhinorrhoea	Bone, joint and muscle pain
Dilated pupils	Insomnia and disturbed sleep
Piloerection	Cramps
Muscle twitching (particularly restless legs while lying down)	Intense craving for opioids
Vomiting	
Diarrhoea	

Naranjo C, E Sellers, (1986). 'Clinical Assessment and Pharmacology of Alcohol Withdrawal Syndrome'. In: Galanter M (ed), *Recent Developments in Alcoholism*. 1st ed. New York: Plenum Press. pp.265-281.

5.3.3 Monitoring

Patients should be monitored regularly, and this may include use of a withdrawal scale. The frequency of observations should be determined by the severity of the withdrawal.

Monitoring should be clinically based on observations, objective signs and subjective symptoms.

Withdrawal scales do not diagnose withdrawal but are merely guides to the severity of an already diagnosed withdrawal syndrome.

Re-evaluate the patient regularly to ensure that it is opioid withdrawal and not another underlying medical condition that is being monitored, particularly if the patient is not responding well to treatment.

5.3.4 Withdrawal scales

The Subjective Opiate Withdrawal Scale (SOWS) (see Appendix H) rates 16 items from 0–64 and is used in many clinical units.

5. Opioids

The Objective Opiate Withdrawal Scale (OOWS) (see Appendix H) rates 11 items describing severity of symptoms from scores of 0 (not present) to >36 (severe).

5.4 Treatment

5.4.1 The regulatory context of addiction treatment

In hospital settings, doctors may use methadone or buprenorphine as part of the management of opioid-dependent individuals hospitalised with medical problems. Outside

In Queensland, it is not legal to prescribe Schedule 8 drugs (drugs of addiction such as morphine) to any person who is considered drug dependent without prior approval to prescribe from the Chief Executive, Queensland Health.

This function is delegated to the Drugs of Dependence Unit.

Phone: 07 3328 9890 Fax: 07 3328 9821
Email: ddu@health.qld.gov.au

hospital, methadone and buprenorphine may only be used in the treatment of opioid dependence by medical practitioners approved to deliver this treatment.

5.4.2 Treatment planning

Treatment planning should:

- address the patient's reasons for seeking treatment, social setting and expectations about withdrawal
- identify short and long-term goals of treatment
- establish a pattern of monitoring and reviewing progress

- include regular review of the patient's objectives, which may change during the course of withdrawal.

5.4.3 Key elements of opioid withdrawal treatment

Information

People who use illicit drugs often possess a great deal of information about drug use, withdrawal and treatment. Much of this knowledge results from their own experience and should be respected, but sometimes reflects misinformation and misunderstanding. This misinformation may concern the nature and course of withdrawal, its severity, the effectiveness of treatments, and especially the response of health professionals to illicit drug users. These beliefs need to be elicited and responded to with objective information.

Support

An empathic, non-judgmental approach from healthcare providers and an encouraging and supportive attitude during withdrawal are essential. For details on supportive care, see section 2.6.3.

Preventing dehydration

In untreated or inadequately treated opioid withdrawal, there may be fluid loss due to sweating, vomiting and diarrhoea. In some cases, dehydration may be serious and require aggressive fluid replacement.

Medication

Various pharmacological options can be used to treat opioid withdrawal. Medication is unlikely to entirely relieve the symptoms of withdrawal but can be used to reduce the patient's discomfort. Medications are detailed in the following sections.

5. Opioids

5.4.4 Buprenorphine

Buprenorphine is the principal treatment option for managing opioid withdrawal. It relieves symptom severity in opioid withdrawal so that other symptomatic medication is not usually required.

Buprenorphine can precipitate withdrawal in someone who has recently used heroin or other short-acting opioids in the previous 12 hours, or long-acting opioids or methadone in the previous 48 hours. Give 4–6 mg of buprenorphine as the first dose as long as the patient has objective signs of withdrawal. Review the patient 3–4 hours after the first dose. If the patient is experiencing no increase in withdrawal severity and is still reporting withdrawal symptoms, give another 2–4 mg of buprenorphine.

If using a withdrawal scale as part of patient assessment, treatment should not begin until there is a OOWS score of at least 8 (representing the mid-point of the scale) or a SOWS score of 16–25 (representing mild to more moderate withdrawal).

Combined use of other sedative substances (e.g. benzodiazepines, opioids, alcohol and tricyclic antidepressants) with buprenorphine can be extremely dangerous and may result in respiratory depression, coma and death.

If a patient is aged 16 or 17 years, a second opinion is strongly recommended before prescribing for opioid dependence. If possible,

the second opinion should be obtained from a drug and alcohol specialist in the local drug and alcohol service and be clearly documented in the medical file.

Pain management and use of buprenorphine

Buprenorphine binds strongly with opioid receptors. As such, it is not usually prescribed, other than at low dose, with full opioid agonists. Buprenorphine itself, however, does provide effective analgesia, particularly in divided doses, and may be a good option as a drug component in managing chronic pain. See *Queensland Opioid Treatment Program: Clinical Guidelines* for further information or discuss with a pain management specialist.

Outpatient management

The recommended duration of buprenorphine treatment for opioid withdrawal is 4–8 days (see table below). If patients choose to continue buprenorphine, this should be done as maintenance treatment.

Example of buprenorphine withdrawal regimen

Suggested regimen	Recommended lower and upper limits
Day 1 6 mg	4–8 mg
Day 2 8 mg	4–12 mg
Day 3 10 mg	4–16 mg
Day 4 8 mg	2–12 mg
Day 5 4 mg	0–8 mg
Day 6 0 mg	0–4 mg
Day 7 0 mg	0–2 mg

Note: Any regimen should be tailored to a patient's withdrawal symptoms.

Patients should be reviewed daily by an experienced health professional during the first few days of a withdrawal regimen. This is important for adjusting doses, if necessary, and to ensure provision of supportive care.

5. Opioids

Flexibility of dosing is recommended, and doses should be titrated to meet the severity of withdrawal symptoms. An initial dose of 4 mg or less will reduce the risk of precipitated withdrawal. Further doses can be administered 90–120 minutes after initial dose and should be guided by patient symptoms.

Inpatient management

Fixed regimens can be negotiated for inpatient areas where staff do not have experience in managing opioid withdrawal. More flexible regimens (with orders for additional doses as required) may be used where staff have suitable expertise. In both cases, multiple small doses (e.g. 2 mg) can be administered throughout the day. Consult the table on page 50 for upper and lower dose limits.

5.4.5 Symptomatic treatments

Buprenorphine provides such effective management of withdrawal symptoms that other medication is rarely necessary. In the absence of buprenorphine, medication of symptoms and supportive care are often sufficient in treating mild withdrawal. Adjunctive therapies (such as hot baths and massage) are also helpful.

See the following table for further information on symptomatic management of withdrawal symptoms.

Symptomatic treatments

Symptoms	Suggested treatments
Muscle aches/pains	Paracetamol 1000 mg, every 4 hours as required (maximum 4000 mg in 24 hours) or Ibuprofen 400 mg every 6 hours as required (if no history of peptic ulcer or gastritis).
Nausea	Metoclopramide 10 mg, every 4–6 hours as required or Prochlorperazine 5 mg, every 4–6 hours as required. Second-line treatment for severe nausea/vomiting: ondansetron 4–8 mg, every 12 hours as required.
Abdominal cramps	Hyoscine 20 mg, every 6 hours as required. Second-line treatment for continued severe gastrointestinal symptoms (for use in a hospital setting only): octreotide 0.05–0.1 mg, every 8–12 hours as required by subcutaneous injection.
Diarrhoea	Loperamide 2 mg as required.
Sleeplessness	Temazepam 10–20 mg at night. Cease the dose after 3–5 nights.
Agitation or anxiety	Diazepam 5 mg four times daily as needed. This should be time limited and tapered off as soon as possible.
Restless legs	Diazepam (as above) or baclofen 10–25 mg every 8 hours.
Sweating, tachycardia, hypertension, agitation	Clonidine 75 µg every 6 hours (care should be taken to monitor blood pressure).

5. Opioids

5.5 Special issues

5.5.1 Pregnancy and breastfeeding

Early reports of pregnant women undertaking acute opioid withdrawal found particular risks including miscarriage, premature labour and distress. The preferred treatment of pregnant opioid users is opioid maintenance treatment, as withdrawal presents risks to the foetus and requires specialist management if it is to be attempted.

Managing withdrawal in pregnancy is beyond the scope of these guidelines. However, slow withdrawal in the second trimester only is the preferred option in patients wishing to attempt withdrawal during pregnancy. If possible, specialist obstetric and drug and alcohol input should be sought. Withdrawal from methadone and buprenorphine is associated with a high risk of return to illicit opioid use with associated harms and should not be encouraged during pregnancy.

Opioid replacement

Methadone maintenance is associated with earlier antenatal care and improved neonatal outcomes. Emerging evidence also supports the use of buprenorphine as an opioid replacement for pregnant women.

Pregnant women are prioritised into an opioid replacement program. Aspects of this care include:

- dose stabilisation
- dose stability throughout the woman's pregnancy
- stopping illicit or other opioid use
- reducing risk of Neonatal Abstinence Syndrome and SIDS.

Doses may need to be increased during pregnancy and sometimes given in divided doses twice daily in response to the physiological changes associated with pregnancy.

Patients (including those on methadone and buprenorphine maintenance treatment) are strongly encouraged to breastfeed in conjunction with appropriate postnatal support.

Foetal and neonatal effects

Neonatal abstinence syndrome (NAS) is a condition observed in babies of women physically dependent on drugs, manifested by non-specific symptoms and signs in the baby. NAS is more common in babies born to opioid-dependent women than in babies born to women dependent on other drugs or alcohol. NAS in babies of opioid-dependent women is manifested by neurological excitability, gastrointestinal dysfunction and autonomic signs. There may be poor feeding, sleep-wake abnormalities, vomiting, dehydration, poor weight gain and occasionally seizures.

Babies of all women taking opioids for a prolonged period during pregnancy will be monitored for NAS.

5.6 Continuing care

During the first week of treatment, post-withdrawal management options should be discussed with the patient. These include abstinence with outpatient support or residential support, or continuation on buprenorphine treatment. **The risks of opioid overdose in the case of relapse should be specifically highlighted, since withdrawal is accompanied by a loss of tolerance.**

5. Opioids

5.6.1 Transfer to naltrexone

Patients who have completed withdrawal can begin taking naltrexone 48 hours after ceasing buprenorphine. Some patients have a reasonably uneventful induction onto naltrexone while others experience considerable distress. It is best to warn prospective patients to expect symptoms. It may be useful to prescribe symptomatic medication for the 24 hours after induction or in the event of precipitated withdrawal.

If patients have used heroin during withdrawal before induction onto naltrexone, symptoms of withdrawal may be more severe. The history provided should be combined with the physical presentation of the patient (such as evidence of intoxication, recent use or withdrawal) to make a clinical judgment on the commencement of naltrexone.

The first dose of naltrexone should not exceed 12.5 mg. Patients should be observed for 3 hours, warned of possible delayed withdrawal, and reviewed on the next day. For the next 2 days, they should receive 25 mg per day, and thereafter 50 mg per day as tolerated. Naltrexone is not subsidised by PBS to treat opioid dependence.

The routine use of naltrexone implants has not been approved by the Therapeutic Goods Administration of Australia.

5.6.2 Post-withdrawal management

Post-withdrawal management services include Narcotics Anonymous, outpatient programs, counselling and residential services. It is important to link to these services in a timely manner, minimising the period from completing withdrawal to engaging in continuing treatment. In particular, organising direct transfer from a residential withdrawal setting to a longer term residential service is desirable for patients who have decided on continuing residential treatment.

See section 2.8 for more information on continuing care.

6. Cannabis

6. Cannabis

Key points

- Commonly reported symptoms of cannabis withdrawal are anger or aggression, decreased appetite, irritability, nervousness or anxiety, restlessness, and sleep difficulties including strange dreams. Less common symptoms include chills, depressed mood, stomach pain, shakiness and sweating.
- The general management approach for cannabis withdrawal should be supportive counselling, accurate information and appropriate planning.
- No specific pharmacotherapies have proven utility in managing cannabis withdrawal.
- Premorbid tendencies toward aggression and violence appear to predict particularly problematic and clinically significant exacerbation of symptoms.
- Tobacco smoking predicts a poorer outcome for cannabis smokers. Concomitant treatment for nicotine withdrawal should assist.
- Underlying psychiatric illnesses or symptoms may be unmasked during withdrawal, and particular attention should be paid to patients with comorbid disorders (especially bipolar illness) and patients with other severe mood and psychotic disorders.
- Post-withdrawal interventions should be used, such as motivational enhancement, relapse prevention, cognitive behavioural therapies, other psychosocial interventions and self-help groups.

6. Cannabis

6.1 Use and effects of cannabis

Positive effects of cannabis include quiet euphoria, feeling mellow and content. There can be sensory intensification and occasionally illusions or distortion, although frank hallucinations are rare, occurring occasionally after very high doses or after the use of oral preparations or potent strains.

Adverse effects include paranoia, anxiety, depression and sedation. Users may experience an increased appetite. Sedation occurs at higher doses and is used to aid sleep by many smokers.

Cannabis may be smoked, often with tobacco, or taken orally. In Queensland, the use of bongos (water pipes) is particularly common. The user packs the cannabis (with or without tobacco, called 'spin') into a cone-shaped metal bowl, hence the term 'smoking a cone'.

One joint (cannabis cigarette) is equivalent in terms of tar to about 3–4 cigarettes. Cannabis contains as many carcinogens as tobacco, deposits a third more tar and is thought to be a risk factor for oropharyngeal and lung cancer as well as coronary heart disease.

Cannabis can affect physical coordination and reaction time, and result in perceptual distortions, confusion and short-term memory loss. Because of this, driving and other manual tasks may be impaired.

6.2 Assessment issues specific to cannabis-dependent patients

Practice tip: general assessment for withdrawal is detailed in section 2.

Cannabis

Identify as accurately as possible:

- form of cannabis and method of administration
- frequency of use
- amount of money spent per day on cannabis.

Users will usually be able to report how many grams (10–15 cones/gram, more if mulled or spun with tobacco) they smoke per day. Smoking marijuana cigarettes (rolled with or without tobacco) commonly known as joints or spliffs is another common mode of use. Heavy users can smoke more than 1 ounce (28 g) a week.

The patient may be intoxicated on presentation, and this may affect their ability to provide and receive information.

See *Appendix B* for a guide to managing intoxication and overdose.

Assessment of intoxicated individuals is difficult but should be pursued as far as is possible. Assessment findings may be reviewed after signs of intoxication have abated.

6.3 Withdrawal

6.3.1 Onset and duration of cannabis withdrawal

Most symptoms commence on day 1, peaking at day 2–3, returning to baseline after a week or two. However, there is temporal variation in the profile of specific symptoms, with the late onset of aggression (day 4) and anger (day 6) being particularly significant, with the former often peaking after two weeks of abstinence.

6. Cannabis

6.3.2 Symptoms of cannabis withdrawal

Clinical studies suggest that 50–75 per cent of dependent cannabis users will experience four or more symptoms, with sleep disturbance, reduced appetite, irritability, anger and aggression occurring in at least 40 per cent.

Common and less common symptoms of cannabis withdrawal

Common symptoms	Less common or equivocal symptoms
Anger or aggression	Chills
Decreased appetite or weight loss	Depressed mood
Irritability	Stomach pain
Nervousness and anxiety	Shakiness
Restlessness	
Sleep difficulties, including strange dreams	
Cravings	
Sweating	

6.3.3 Factors contributing to withdrawal severity

Variables affecting withdrawal include:

- psychiatric comorbidity
- amount and potency of preparation consumed
- history of aggression or violence
- duration of current use and the number of years using
- rate of withdrawal
- comorbid substance use
- past or current substance use history.

6.3.4 Monitoring withdrawal

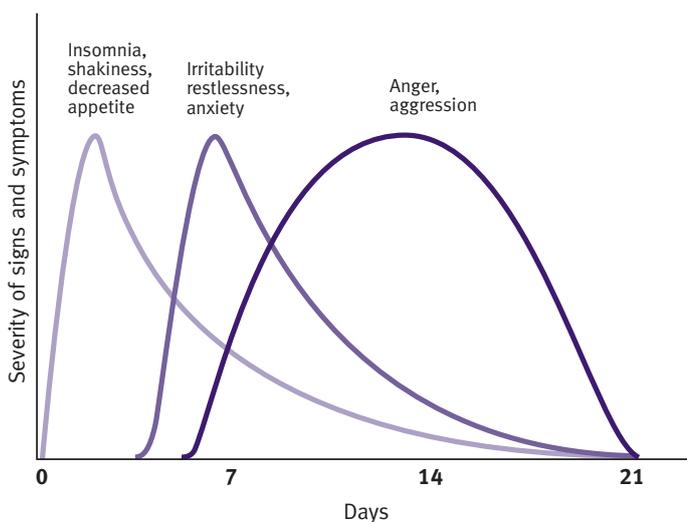
Assessment of withdrawal may be assisted by the use of a standardised withdrawal assessment scale, such as the Cannabis Withdrawal Scale (*Appendix H*).

Urine drug screening

Urine drug screening for the inactive cannabis metabolite (11-hydroxy-THC) can be supportive of cessation, and may be indicated as part of contingency management, positive feedback or as a condition of a court diversion program.

Creatinine to cannabis ratios fall rapidly with cessation and, although it may take up to 12 weeks of abstinence to attain clean urine in chronic smokers, reductions in urinary concentration may support self-reporting.

Course of cannabis withdrawal



6. Cannabis

6.4 Treatment

The default management approach for cannabis withdrawal should be supportive counselling, accurate information and appropriate planning.

When planning for cannabis withdrawal, clinicians should take note of impending crises, current psychosocial stressors, likely triggers, paraphernalia, contact with users and dealers, and so on. The use of self-help booklets can be helpful, such as:

- *What's the Deal on Quitting?*
A Do-it-Yourself Guide to Quitting
<http://ncpic.org.au/static/pdfs/do-it-yourself-guide-to-quitting.pdf>
- *Quitting Cannabis?*
Client booklet and clinician guidelines
<http://ncpic.org.au/static/pdfs/quitting-cannabis-workbook-web.pdf>
- *Concerned About Someone's Cannabis Use?*
Fast Facts on How You Can Help
<http://ncpic.org.au/static/pdfs/ff-helping-someone-web-version-2011.pdf>

For individuals likely to receive medication, the dosing schedule, duration of treatment and possible side effects should be explained and written information should be provided.

6.4.1 Indications for inpatient cannabis withdrawal

When attempts at outpatient-supported withdrawal have been repeatedly unsuccessful, or where there are compelling psychosocial indications, admission for 1–2 weeks of inpatient withdrawal may be warranted. Often this will be as much for removal of the patient from a source of the drug and psychosocial support as it is to monitor and medicate withdrawal. It is recommended that discussion with the Hospital Alcohol and Drug Service (HADS) occurs prior to any admission for cannabis withdrawal.

Inpatient withdrawal from cannabis may be indicated by the following factors:

- The patient has significant mental health problems (e.g. schizophrenia or bipolar disorder). If there is doubt over the existence of co-existing psychopathology, a period of confirmed abstinence with observation and monitoring within an inpatient unit may assist in assessment and diagnosis.
- The patient has a history of severe premorbid aggression or violence, especially if previous withdrawal attempts have been associated with an exacerbation of such symptoms. This is particularly important if others sharing the user's home (especially children) may be placed at risk during the withdrawal period. It may be appropriate with some patients to conduct a formal risk assessment to determine the most appropriate setting for management.
- The patient has polydrug dependence, where complicated withdrawal may be expected.

6. Cannabis

6.4.2 Pharmacotherapies

There are no specific pharmacotherapies that have proven utility in managing cannabis withdrawal or maintaining abstinence. Although most clinical practice involves the use of benzodiazepines, there are no controlled studies assessing the efficacy of this practice and there is the risk of misuse and dependence. More detailed information can be obtained from *Management of Cannabis Use Disorder and Related Issues – a Clinician’s Guide* from the National Cannabis Prevention and Information Centre, University of New South Wales, Sydney NSW 2052 or at <http://ncpic.org.au>

Users should refrain from caffeinated drinks during the withdrawal period, as they may increase restlessness, irritation and insomnia.

Based on the limited literature available, the table below presents options that may be chosen on the basis of physician and patient preference, safety and supervision issues, contraindications and particular symptom profile.

Medications for different symptom clusters in cannabis withdrawal

Symptom	Medication
Sleep problems	benzodiazepines, promethazine
Restlessness, anxiety, irritability	diazepam
Stomach pains	hyoscine (Buscopan)
Physical pain, headaches	paracetamol, non-steroidal anti-inflammatory agents
Nausea	promethazine, metoclopramide

6.4.3 Symptomatic relief by symptom cluster

Given the wide interpersonal variability in the response to cannabis withdrawal, dosages and prescribing schedules for symptomatic relief will most effectively be decided upon only after thoroughly exploring the individual patient’s symptom profile and circumstances.

Outpatient regimens might be:

- 4 days of diazepam at 5 mg twice daily
- other symptomatic medications as needed.

Inpatient regimens should not use other medication types but there may be a need to use higher doses of selected pharmacotherapies, administered for a longer period.

Regular patient contact and monitoring, either via clinic visits or telephone, can be useful in adjusting drug selection and dose. Monitoring should continue when withdrawal is complete and medication ceases to identify any psychiatric symptoms that were previously masked or latent. Routine outpatient follow-up during the first 2–4 weeks should be offered.

6.4.4 Psychosocial management, including dose tapering

Many users will be able to stop smoking abruptly without experiencing significant withdrawal. Two specific cannabis reduction strategies are:

- sudden cessation, with or without symptomatic relief
- gradual dose reduction through use of diaries and in combination with an evidence-based psychological intervention. In this case, the need for symptomatic relief may be reduced.

Clinical experience suggests that if the user is able to exert some control over the level of use (perhaps supported by a family member), a gradual tapering of consumption can significantly reduce the severity of withdrawal. It may be the only intervention required in some users, and may negate the need for psychotropic medication.

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With these complementary strategies in mind, it is possible to offer patients a choice of methods for getting through any withdrawal they might experience. Depending on precise patient characteristics and other clinical imperatives (e.g. an acute psychotic episode), the patient, clinician or carer may express a preference. Where pain is an issue, a more gradual reduction is advisable to ensure that adequate alternative analgesia is in place before cessation.

Patients should be provided with a choice of intervention strategies and their preference should be strongly supported unless clinically contraindicated.

Even if such approaches do not lead to abstinence, they support the user in reducing or controlling intake and are useful harm reduction interventions.

Gradual reduction in daily use

Suggestions to gradually taper cannabis use may involve one or more of the following strategies:

- reducing the number of bongs or joints each day to reduce the total daily consumption of cannabis
- gradually lengthening the time after waking to the first use of cannabis as a good way to develop a short-term drop in tolerance. It also permits the opportunity for the user to take part in some non-drug reinforcing activity, preferably one incompatible with smoking or other substance use such as exercise (e.g. walking, running)
- gradually reducing either the cone size or cone strength to reduce the amount consumed from each bong
- for joint smokers, using alternative reduction techniques, such as rolling smaller joints or weaker joints, or not smoking the whole joint at once

- having an agreed dose reduction schedule (most users should aim to reduce to zero over 1–4 weeks).

Family support

The family or carers should be educated about the clinical picture of cannabis withdrawal, the purpose, side effects and doses of any prescribed medications, and advice on how to avoid exacerbating withdrawal. They may help in controlling access to cannabis (e.g. rationing), although this is only likely to be effective if requested by the user. Safety is a key issue, especially among young men with a history of violence and aggression. In such cases, a risk assessment should be conducted. Cannabis withdrawal requires supportive management if young children or women may be at risk.

Self-help booklets

There is a wide range of excellent self-help books to assist in managing cannabis use disorders.

6.5 Special issues

6.5.1 Premorbidly aggressive and prison populations

Close monitoring and support should be provided to people with histories of aggression or severe withdrawal, with particular attention to the withdrawal environment and the individual's circumstances. Inpatient admission may occasionally be appropriate.

Cannabis withdrawal within prisons and detention centres that accommodate either adults or young people has anecdotally been associated with increased levels of aggression and violence. Health service providers to correctional facilities may wish to consider the potential effect of cannabis withdrawal on health and safety.

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6.5.2 Pregnancy

Research findings on the effects of maternal cannabis consumption on foetal development, perinatal outcome and childhood development are inconsistent but do not appear to suggest that use through pregnancy is a significant teratogen or cause of significant infant mortality. However, cannabis use in pregnancy is associated with poorer pregnancy outcomes: lower birth weight, behavioural and developmental effects occurring in the first few months of life, and some other cognitive and developmental problems in early childhood.

Cannabis use may be a marker for other more significant substance use, and if consumed with tobacco, carries the risks of intrauterine growth retardation and prematurity.

Pregnant women should be strongly advised to stop using cannabis and be supported using the minimum of medication.

Monitoring of and responding to cannabis withdrawal symptoms is recommended for pregnant women with a history of regular cannabis use and who may require antenatal admission. Provide health education to women on the risks associated with continued cannabis use during lactation.

6.5.3 Pain

Some people with chronic pain syndromes use cannabis. Cannabis appears to be an effective adjunctive analgesic with particular benefits for people with persistent pain related to terminal illness or musculoskeletal spasm such as multiple sclerosis. It should be noted that the medical use of cannabis is not supported in Queensland at this time. In these patients, careful consideration needs to be given to providing alternative analgesia while reducing cannabis use.

6.5.4 Young people

Dependent use of cannabis by people younger than 16 years occurs in the context of other psychosocial difficulties. The absence of protective factors, co-existing family discord, poor school attainment, social exclusion and childhood psychiatric disorder (e.g. conduct disorder, post-traumatic stress disorder and attention deficit hyperactivity disorder) are likely to compound the problems associated with cannabis dependence and withdrawal.

Non-confrontational approaches using motivational interviewing should be used, with family support where available and appropriate. Medication should be avoided.

Admission to adult inpatient units should be avoided. Inpatient admission should be to a specialist adolescent unit within or supported by a drug and alcohol service such as the Adolescent Drug and Alcohol Withdrawal Service (ADAWS), located at South Brisbane. ADAWS offers a fully supported withdrawal program for young people aged 13–18 years who feel they have a problem with substance use.

6.5.5 Comorbid psychiatric conditions

Underlying psychiatric illnesses or symptoms may be unmasked during withdrawal, and particular attention should be paid to patients with comorbid disorders. This especially applies to bipolar illness (where sudden cessation can be associated with manic relapse) and in patients with other severe mood and psychotic disorders (where cessation can also lead to decompensation). In such instances, inpatient admission may be appropriate.

Assessment after withdrawal may permit the accurate diagnosis and appropriate treatment of pre-existing psychiatric disorders. Frequent disorders reported in association with cannabis include depression, anxiety, paranoia and depersonalisation.

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Among patients receiving drug treatment for psychotic disorders, cannabis use may be associated with antagonism of neuroleptic effect, reduced compliance and higher doses. These patients should be engaged in a planned intervention around their cannabis use. Key approaches include harm-reduction advice, motivational interviewing and, particularly, compliance therapy, a variant on motivational enhancement therapy that has been shown to increase compliance and improve outcomes among people prescribed antipsychotic medication.

6.6 Continuing care

There are no specific continuing care strategies for cannabis dependence once abstinence or a desired reduction in use has been attained. Standard interventions aimed at reducing relapses and sustaining motivation should be used.

Supportive group programs may be useful for some.

7. Psychostimulants

7. Psychostimulants (amphetamines, cocaine and ecstasy)

Key points

- Mental state symptoms such as paranoia, delusions or perceptual disturbances are common among stimulant users seeking treatment. Signs and symptoms can fluctuate with time. Both a formal mental state examination and a suicide risk assessment should be conducted on all patients presenting with a history of stimulant use.
- Withdrawal typically occurs in three phases. The crash phase commences as stimulants wear off and can last for several days. Key features include fatigue, flat affect, increased sleep and reduced cravings. The withdrawal phase typically commences 2–4 days after the last amphetamine use or 1–2 days after the last cocaine use. Features are predominantly psychological, with fluctuating mood and energy levels, cravings, disturbed sleep and poor concentration. Withdrawal features gradually subside during the extinction phase, which lasts from weeks to months.
- Withdrawal from stimulant drugs is not medically dangerous and no specific treatment has been shown to be effective. The usual objectives in treating stimulant withdrawal are to assist the patient to interrupt a period or pattern of compulsive use, to identify and manage comorbid conditions and to initiate relapse prevention treatment.
- The role of medication in managing cocaine or amphetamine withdrawal is unclear. At present, there is no specific medication schedule recommended for treating this condition.
- The protracted extinction phase of stimulant withdrawal requires integration between withdrawal services and post-withdrawal services.

7. Psychostimulants

7.1 Use and effects of psychostimulants

Psychostimulants are a group of drugs including amphetamines, cocaine and ecstasy (MDMA).

The term 'amphetamine' includes the three types of amphetamines: amphetamine, dexamphetamine and methamphetamine. Most illicit drugs bought as speed or amphetamines are likely to be methamphetamine.

Speed is a powder form of amphetamine or methamphetamine. It is produced in different colours and ranges in texture from fine granules to coarse crystals. It is the weakest form of illicit amphetamines and is usually injected, snorted or swallowed.

Base is an oily, waxy, sticky form of methamphetamine coming in a moist paste or damp powder. There is also a liquid form called ox blood. It is a high-purity freebase and stronger in purity than speed and is normally swallowed or smoked.

Ice is the strongest form of methamphetamine. It either comes as a crystalline powder or crystals and is white or translucent. It is the highest purity form of methamphetamine and is usually smoked or injected.

Cocaine is a white crystalline powder and it is snorted, injected or swallowed. Crack cocaine, which is smoked, has been reported in Australia. Use of cocaine is relatively uncommon in Queensland at present.

Ecstasy (methylenedioxymethamphetamine) and other party drugs are readily available in Queensland and are ingested generally in a tablet form. Tablets may contain a range of drugs and often include methamphetamine.

A range of psychostimulant medications is available for the treatment of various conditions. These may also be used non-medically or illicitly. These include methylphenidate (Ritalin), diethylpropion

(Tenuate), phentermine (Duramine), ephedrine and pseudoephedrine (Dimetapp, Sudafed, Benadryl and Sinutab) and dexamphetamine.

Psychosis in amphetamine users has increased over recent years, reflecting increased use and availability of methamphetamine. To date, no pharmacological treatment managing this psychosis has been proven to be more effective than another.

Stimulants are used by diverse groups in the community, including:

- young people experimenting with illicit drugs
- shift workers
- people (often women) seeking to lose weight
- individuals seeking to self-medicate against depression and attention deficit hyperactivity disorder or to counter the effects of sedating medication (e.g. methadone, antipsychotics)
- people in certain cultural groups where stimulant use is prevalent (e.g. rave scenes).

The pattern of stimulant use varies across these different groups. Amphetamines and cocaine can be injected, swallowed, snorted or smoked. Polydrug use is very common among people who use stimulants. A common pattern among dependent users is high-dose binges lasting for days, followed by exhaustion and withdrawal dysphoria.

In general, stimulants increase alertness, the sense of wellbeing, and reinforce the pleasure experienced with many activities. Some individuals move into a pattern of repeated use and higher doses in an increasing search for intense euphoric sensations.

7. Psychostimulants

Effects of psychostimulants

Immediate effects	Effects of higher doses
Increased alertness	Headaches
Increased energy	Pale skin
Increased confidence	Restlessness
Euphoria	Dizziness
Increased talkativeness	Rapid or irregular heartbeat
Loss of appetite	Paranoia
Insomnia	Anxiety
Increased heart rate and breathing	Panic attacks
Nausea or vomiting	Depression
Headaches	Confusion (feeling 'scattered')
Jaw clenching	Hypertension
Hot and cold flushes	Heart attack
Sweats	Stroke

7.2 Assessment issues specific for stimulant users

Note: general assessment for withdrawal is detailed in section 2.3.

Amphetamines are the most frequently used group of drugs in this category.

Define the route of administration, the specific agents used, and the frequency and pattern of use.

Many street products will not be pure, and urine drug screening is appropriate to document what has been consumed.

Consumption may be recorded as frequency of administration or as dollars spent.

The patient may be intoxicated on presentation, and this may affect their ability to provide and receive information.

See Appendix B for a guide to managing intoxication and overdose.

Assessment of intoxicated individuals is difficult but should be pursued as far as is possible. Assessment findings should be reviewed after signs of intoxication have abated.

Patients may not consider their stimulant use to be a problem and therefore not disclose use unless a systematic enquiry of all drug classes is performed. Use of other drugs is common in association with (either during or after) stimulant use.

7.2.1 Regular monitoring and repeated assessment over time

Patients undergoing stimulant withdrawal require ongoing assessment and regular monitoring, particularly in the first 2 weeks of abstinence (by which time peak symptoms will have appeared).

Patients may appear calm, with few cravings and generally well in the first few days without stimulant use (during the 'crash' phase), but withdrawal or mental state problems may become apparent several days after the initial assessment.

7.2.2 Assessment of potential complications of psychostimulant use

All patients withdrawing from stimulants should undergo a medical and mental state assessment.

Mental state symptoms such as paranoia, delusions or perceptual disturbances are common among stimulant users seeking treatment. Signs and symptoms can fluctuate with time. Repeated assessment is indicated — mental state problems may not surface until late in the first week of withdrawal, with features masked during the crash phase.

7. Psychostimulants

If mental state problems are severe and/or persistent (e.g. longer than a week after last stimulant use) then specialist psychiatric assessment is necessary.

The presence of significant mental state problems requires regular monitoring over a longer period (months) to differentiate the diagnosis.

There are many potential complications associated with cocaine and amphetamine use, and every body system can be affected.

A phenomenon associated with stimulant use is ‘kindling’: Once an individual experiences certain complications from their stimulant use (e.g. arrhythmias, seizures, psychosis), they are

Specialist medical assessment is required for patients with medical complications.

more susceptible to further episodes, even with low doses. Warn patients who have experienced stimulant-related complications against further stimulant use.

7.2.3 Unplanned withdrawal

Stimulant users come in contact with a variety of services, and may undergo withdrawal incidental to their primary presentation. Patients may conceal or under-report their stimulant use, as they may not consider it to be a problem.

Potential complications from psychostimulant use

System	Complication
Cardiovascular	Arrhythmias: tachycardia, bradycardia, ventricular tachycardia and QTc prolongation Hypertension: may lead to strokes Spasm of arteries: leading to myocardial infarcts or stroke (myocardial infarcts can occur during first weeks of withdrawal) Cardiomyopathy and congestive heart failure
Neurological	Seizures: clonic convulsions Cerebrovascular accident: including brain haemorrhages, infarcts and ischaemic episodes Neuropsychological changes: deficits in attention, concentration, memory and learning new skills Movement disorders: tics, disturbed gait, stereotyped repetitive movements and choreiform movements
Psychiatric	May mimic any psychiatric disorder. More commonly: <ul style="list-style-type: none"> • depression, with changes in mood and affect, sleep and activity • paranoia, ranging from hypervigilance to paranoid psychosis • anxiety and aggression, ranging from irritability and agitation to panic attacks or violence (more common in amphetamine users) • delirium, with clouding of consciousness, disorientation and confusion • psychosis, characterised by paranoia and anxiety, impaired reality testing with loss of insight and delusions (e.g. ideas of reference, persecutory delusions) and perceptual disturbances, including misperceptions and visual, auditory or tactile (formication) hallucinations.
Respiratory	Smoking of cocaine and amphetamines can result in chronic lung damage (including pneumonia, non-cardiogenic pulmonary oedema, bronchitis).
Sexuality	Short-term stimulant use is often associated with increased sexual drive and performance. However, chronic use can lead to difficulties achieving orgasm, altered menstruation (oligomenorrhea, amenorrhea) and galactorrhea in women, and reduced libido, impotence and gynaecomastia in men.
Hyperpyrexia	Extremely elevated body temperature, which can contribute to seizures, cardiac arrhythmias, and death. Rhabdomyolysis can also occur, resulting in acute renal and hepatic failure, disseminated intravascular coagulation, and death.
Pregnancy	Stimulant use during pregnancy is associated with higher rates of obstetric complications (spontaneous abortion, miscarriage and placental abruption), and harm to the foetus.
Other	Weight loss (chronic loss of appetite and increased metabolism) can occur. Skin lesions (‘crank bugs’) can occur due to repetitive purposeless movement, scratching and formication (the feeling of bugs crawling beneath the skin) and abscesses, due to adulterants, particularly in injectors.

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To detect stimulant use:

- conduct a comprehensive and systematic assessment of all classes of drug use within recent weeks
- be familiar with common patterns of use and withdrawal commonly associated with stimulant use
- look for injection marks. Stimulant users who inject often do so multiple times during a session (particularly cocaine)
- individuals presenting to health services with complications of stimulant use should have a systematic assessment of their drug use.

7.3 Withdrawal

7.3.1 Onset and duration

Withdrawal typically occurs in three phases.

Three phases of withdrawal

Phase	Time since last stimulant use	Common signs and symptoms
Crash	Amphetamines: typically commences 12–24 hours after last amphetamine use, and subsides by days 2–4.	Exhaustion, fatigue Sleep disturbances (typically increased sleep, although insomnia or restless sleep may occur) Mood disturbances — typically flat mood or dysphoria; may be associated with anxiety or agitation Low cravings Generalised aches and pains
	Cocaine: occurs within hours of last use, with short duration (up to 48 hours). Some individuals do not report a significant crash on stopping cocaine.	
Withdrawal	Amphetamines: typically commences 2–4 days after last use, peaks in severity over 7–10 days, and then subsides over 2–4 weeks.	Strong cravings Fluctuating mood and energy levels, alternating between irritability, restlessness, anxiety, and agitation Fatigue, lacking energy, anhedonia Disturbed sleep, including vivid dreams, insomnia General aches and pains, headaches Muscle tension Increased appetite Poor concentration and attention Disturbances of thought (e.g. paranoid ideation, strange beliefs) and perception (e.g. misperceptions, hallucinations) can re-emerge during withdrawal phase after having been masked during the crash phase
	Cocaine: typically commences 1–2 days after last use, peaking in severity over 4–7 days, then subsides over 1–2 weeks.	
Extinction	Weeks to months	Gradual resumption of normal mood with episodic fluctuations in mood and energy levels, alternating between irritability, restlessness, anxiety, agitation, fatigue, lacking energy and anhedonia Episodic cravings Disturbed sleep

7.3.2 Factors affecting severity of withdrawal

There is considerable variation in the severity of withdrawal upon ceasing regular and heavy psychostimulant use. The following factors appear to affect the severity of withdrawal:

- intensity of psychostimulant use
- type of psychostimulant (less potent psychostimulants such as ephedrine and phentermine are likely to produce less severe withdrawal)
- dose, frequency and duration of use
- mode of administration: injecting is often associated with greater amounts of stimulant use, higher incidence of psychopathology, higher severity of dependence, and perhaps more severe withdrawal
- other drug use
- intercurrent illness

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- patient expectations
- environment and psychosocial supports.

7.4 Monitoring

Mood and energy levels fluctuate over time — a patient may present with low mood, flat affect and psychomotor retardation at one time, yet be quite restless and agitated later in the same day.

Underlying mental state problems may be masked during the initial assessment or crash phase, and may surface later in withdrawal.

Withdrawal scales have not been routinely used in clinical practice.

7.5 Treatment

Withdrawal from stimulant drugs is not medically dangerous, and no specific treatment has been shown to be effective in reducing withdrawal symptoms.

The primary aim of withdrawal management is to attend to complications and engage the patient in relapse prevention.

7.5.1 Treatment planning

Treatment planning needs to consider the specific characteristics of stimulant withdrawal. In particular, the onset of withdrawal discomfort may be delayed for several days after stopping stimulant use.

Managing the prolonged withdrawal typical of psychostimulant dependence requires careful integration and coordination between withdrawal and post-withdrawal services to provide ongoing support to the patient. Treatment should not be restricted to short-term (1–2 week) episodes.

To manage the high prevalence of complications (particularly mental state problems) in stimulant users, withdrawal services require adequate resources.

For example, staff need to be able to conduct mental state examinations, have in place

policies and procedures for dealing with aggressive patients, and coordinate relevant medical and psychiatric services.

7.5.2 Treatment settings

The usual treatment setting is ambulatory. People who are acutely psychotic may require management in a mental health unit.

7.5.3 Supportive care

The general principles of supportive care involve:

- providing information
- supportive counselling aimed at helping the client cope with symptoms and cravings and to maintain motivation
- specific strategies for addressing agitation, anger, perceptual disturbances and sleep disturbances
- frequent orientation, reassurance and explanation of procedures to patients with thought or perceptual disturbances, as they can easily misinterpret actions or events around them
- crisis intervention, addressing accommodation, personal safety or other urgent welfare issues.

7.5.4 Pharmacotherapies

The role of medication in managing cocaine or amphetamine withdrawal is unclear. There is no evidence that the medications below, which fall into two categories, influence the outcome of amphetamine withdrawal. The medications include:

- those intended to counter the reduced dopaminergic, noradrenergic or serotonergic activity associated with stimulant withdrawal, including desipramine, bromocriptine, amantadine and various selective serotonin reuptake inhibitors (SSRIs) such as fluoxetine
- mood stabilisers, such as lithium or carbamazepine.

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Symptomatic medications may be beneficial in ameliorating particular symptoms for some patients during withdrawal.

Antipsychotic medication, such as olanzapine 2.5 mg daily, should be considered for patients with features of psychosis (thought disorder, perceptual disturbances) that are distressing to the patient or others. Consult a psychiatrist if symptoms are severe or do not quickly resolve within days. Medication should be continued for at least 1–2 weeks after symptoms resolve, with careful monitoring for the return of symptoms as the medication is withdrawn.

Benzodiazepines are useful for anxiety and sleep disturbances, but should not be used for longer than 2 weeks without review. Alternative approaches to managing anxiety and sleep problems should be encouraged, such as sleep hygiene, exercise and relaxation techniques.

Antidepressants are helpful for managing clients with persistent features of depression following stimulant withdrawal, however caution should be exercised in prescribing serotonergic drugs to patients at risk of relapse to stimulant use because of the risk of serotonin toxicity. Specialist assessment and a treatment plan combining counselling (such as cognitive behavioural therapy) and antidepressants should be considered.

7.5.5 Addressing complications during withdrawal

Specialist medical attention is required for patients with potential complications. Even if the complication, such as seizures, is thought to be associated with stimulant use and to have resolved, patients who have not previously been assessed should be referred to a specialist to investigate underlying predisposing conditions or alternative diagnoses (e.g. epilepsy).

Pregnancy

Pregnant women who report current or recent psychostimulant drug use may require an inpatient admission and medication support to assist them in stopping and recovering from their drug use. While withdrawal symptoms from psychostimulant drug use are uncommon in pregnant women, for some women there may be need for short-term use of benzodiazepines.

Psychostimulant drug use in pregnancy is associated with poorer pregnancy outcomes and users often have other psychosocial risk factors including mental health diagnoses. Dean & McGuire (2004) found no evidence of psychostimulants being a human teratogen, however similar cough syrup compounds were found to increase the risk of ventricular septal defect. Further, there have been reports of psychostimulant drug use in pregnancy resulting in umbilical artery spasm and intrauterine growth retardation, poor prenatal brain development, placental abruption and neonatal intoxication and withdrawals.

Pregnant women should be supported to cease their psychostimulant drug use. Interventions should include counselling, relapse prevention and social support. Women may require management of comorbid mental health issues.

7.6 Continuing care

Integrated withdrawal and post-withdrawal services are required to manage the protracted nature of the extinction phase of stimulant withdrawal.

Interventions such as relapse prevention and self-help groups should be encouraged for all patients.

Specialist assessment should be considered for patients with medical or psychiatric complications (e.g. persistent or severe features of psychosis or depression).

Harm-reduction interventions should be encouraged for patients who plan to resume stimulant use.

For general information on continuing care after withdrawal, see section 2.

8. Nicotine

8. Nicotine

Key points

- Symptoms of nicotine withdrawal include four or more of the following: depressed mood, insomnia, irritability, frustration or anger, anxiety, difficulty in concentration, restlessness, decreased heart rate and increased appetite or weight gain.
- The general management approach for nicotine withdrawal should be supportive counselling, accurate information, pharmacotherapy options and appropriate planning.
- Nicotine replacement therapy (NRT) is widely used to decrease withdrawal symptoms. Bupropion, varenicline, clonidine and nortriptyline can also be used during withdrawal. These pharmacotherapies should be considered in a holistic approach to smoking cessation.
- Cannabis smokers often mix tobacco for smoking. Concomitant treatment for cannabis withdrawal should be initiated if the person is stopping cannabis use (*see Chapter 6*).
- Post-withdrawal interventions should be used, such as the Quitline (131 848), motivational enhancement, relapse prevention, cognitive behavioural therapies, other psychosocial interventions and self-help groups.

8. Nicotine

8.1 Use and effects of nicotine

Nicotine is a psychoactive drug that affects mood and performance and is the source of addiction to tobacco. Nicotine facilitates the release of neurotransmitters including acetylcholine, norepinephrine, dopamine and serotonin. Behavioural rewards from nicotine – and perhaps nicotine dependence as well – are linked to dopamine release.

In Queensland in 2010, 15.5 per cent of adults smoked, a decrease of 3.5 per cent since 2001. In 2006–2007, one in seven of all deaths in Queensland were related to smoking. Adverse effects include acute effects on the central nervous, gastrointestinal and musculoskeletal systems, and longer-term effects on the cardiovascular and respiratory systems. Tobacco use contributes to complications related to pregnancy, degenerative disease and injuries. It is a major cause of malignancy in the lung and elsewhere. Environmental tobacco smoke causes disease in non-smokers.

Tobacco is generally smoked using cigarettes, cigars or pipes. Tobacco can also be chewed. ‘Chop-chop’ is tobacco that has been made and sold illegally. Because of the lack of quality control in its production, it may contain a range of substances, including mould and fungus, which can cause additional health problems.

8.2 Assessment issues specific for nicotine-dependent patients

Note: general assessment for withdrawal is detailed in section 2.3.

The Fagerström test for nicotine dependence should be used to gauge the dependence of a tobacco smoker and their risk of nicotine withdrawal (*see Appendix J*). A two-question version of this test can be used.

Two-question version of Fagerström test for nicotine dependence

Question	Answer	Score
How soon after waking up do you smoke your first cigarette?	Within 5 minutes	3
	6–30 minutes	2
How many cigarettes a day do you smoke?	10 or fewer	0
	11–20	1
	21–30	2
	31 or more	3
Score	0–2 very low 3 low 4 moderate 5 high 6 very high	

8.3 Withdrawal

8.3.1 Onset and duration of nicotine withdrawal

Withdrawal symptoms commence within a few hours of the last cigarette, peak in the first 24–72 hours and resolve in about 2–4 weeks. The DSM-IV states that four or more of the symptoms below within the first 24 hours of nicotine reduction or cessation indicate nicotine withdrawal.

Signs and symptoms of nicotine withdrawal:

- depressed mood
- insomnia
- irritability, frustration or anger
- anxiety
- difficulty in concentration
- restlessness
- decreased heart rate
- increased appetite or weight gain.

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8.3.2 Factors contributing to withdrawal severity

Variables affecting withdrawal may include:

- psychiatric comorbidity
- severity of dependence
- duration of current use
- past or current substance use history or withdrawal.

In planning for nicotine withdrawal, clinicians should take note of impending crises and current psychosocial stressors as likely triggers. Health care professionals such as general practitioners and pharmacists can provide support and advice.

Patients should be given information to help them reach an informed choice of which pharmacotherapy (if any) they would wish to use.

Individuals likely to receive a pharmacotherapy should receive information about the dosing schedule, the duration of treatment and possible side effects.

8.4 Treatment

8.4.1 Indication for inpatient nicotine withdrawal

There is generally no indication for admission into an inpatient facility to manage nicotine withdrawal. However, many patients will be admitted to hospital and consequently experience withdrawal from nicotine.

Patients should be informed of the *Queensland Health Smoking Management Policy (2006)* and offered support to stop. Nicotine replacement therapy (NRT) should be used when not contraindicated. Information on offsite or outdoor designated smoking areas should be provided, if available, if patients wish to continue to smoke.

The default management approach for nicotine withdrawal should be supportive counselling, accurate information, pharmacotherapy and appropriate planning.

Assessment, information, education, support, NRT and referral should be offered to all patients in this situation whether they intend to continue smoking on discharge or not. If they intend to stop, a referral to the Quitline, their general practitioner or pharmacist should be provided.

Supportive counselling, accurate information, pharmacotherapy options and appropriate planning should be used during the withdrawal period. A range of resources is available including fact sheets, self-help booklets and the Quitline for use during and after the withdrawal period. Counselling is also provided by some services. The guidelines for coping skills (*Appendix F*) can help in dealing with cravings and anxiety.

Quitline 131 848

National Tobacco Campaign
www.quitnow.info.au/

Helping Smokers Quit: A Health Professional's Guide to Brief Intervention
www.health.qld.gov.au/atods/documents/30593.pdf

8. Nicotine

8.4.2 Pharmacotherapies

A holistic approach to smoking cessation is important and a pharmacotherapy should be seen as one part of this approach.

Pharmacotherapies include:

- nicotine replacement therapy (NRT)
- varenicline (Champix)
- bupropion (Zyban)
- other options such as clonidine and nortriptyline.

Nicotine replacement therapies

NRT provides lower nicotine levels than those achieved by smoking but can relieve the physiological withdrawal symptoms of smoking and reduce the urge to smoke cigarettes. NRT options are gum, patches, lozenges and an inhaler. Combining a patch with another self-administered form of NRT may be more efficacious than one form alone.

Because the number of cigarettes smoked correlates poorly with nicotine levels, there is no evidence that NRT dose-matching is effective. (A better method is to take CO₂ levels.) All dependent smokers should be started on 21 mg patches last thing at night. The addition of other oral forms of NRT such as gum and lozenges should be used.

A second 21 mg patch could also be applied during the day for severe cravings. Once abstinent and comfortable, a single 21 mg patch should be continued for at least 8 weeks.

Pharmacists can play an important role in providing information to people wanting to use NRT. In general, issues such as the type of NRT, previous withdrawal symptoms and patterns, the need for a combination of agents and regular review should be explored in all settings. Not smoking while using NRT should be strongly encouraged.

Bupropion (Zyban)

Bupropion is an alternative to NRT and smokers should start 7 days before they plan to stop smoking. It should be taken for 7 weeks.

Varenicline (Champix)

Smokers should start varenicline 1–2 weeks prior to ceasing smoking and continue it for 12 weeks.

8. Nicotine

Dosage for nicotine replacement therapy

Dose type	Dose	Side effects	Contraindications
Patches	21 mg, 1–2 daily (apply first patch at night)	Transient skin irritation, itching, vivid dreams, sleep disturbance, indigestion, diarrhoea	Relative: <ul style="list-style-type: none"> • ischaemic heart disease Absolute: <ul style="list-style-type: none"> • recent myocardial infarction • serious arrhythmias • unstable angina Pregnancy: <ul style="list-style-type: none"> • intermittent preparations and lowest possible dose should be used
Gum	4 mg, 8–12 daily	Jaw discomfort, nausea, indigestion, hiccups, excess saliva, sore throat	
Inhaler	6–12 cartridges per day	Mouth and throat irritation, cough, nausea, indigestion	

Dosage for bupropion and varenicline replacement therapy

Bupropion dose (for all patients)	Side effects	Contraindications
150 mg for 3 days then 150 mg twice a day for 7 weeks	Headaches, dry mouth, impaired sleep, seizures, nausea, constipation, anxiety and dizziness	Seizure disorders or significant risk of seizure Bulimia Anorexia nervosa Bipolar disorders
Varenicline dose	Side effects	Contraindication
Day 1–3 0.5 mg once daily Day 4–7 0.5 mg twice daily Day 8 onwards 1 mg twice daily	Irritability, insomnia, depression, anxiety, weight gain, GI upset, headache, behaviour change, suicidality (cause unknown), hypersensitivity	Psychiatric illness history (the person may need close monitoring as safety and efficacy are not established) Epilepsy Pregnancy, lactation

8. Nicotine

8.5 Special issues

8.5.1 Pregnancy

There are great benefits to stopping smoking before and during pregnancy, and all women and their partners should be offered information and support.

While withdrawing from nicotine is not dangerous to the mother or infant, withdrawing from nicotine may increase the risk of relapse to smoking or other substances.

Some studies have shown NRT is associated with an increased risk of congenital abnormalities. However, NRT should be considered when a pregnant woman is otherwise unable to stop, and when the likelihood and benefits of cessation outweigh the risks of NRT and potential continued smoking.

It is recommended that pregnant women who smoke use intermittent, rather than continuous, nicotine replacement preparations and use the lowest dose possible to achieve control. It is also recommended, when possible, to delay therapy until the second trimester in order to avoid the period of embryogenesis. If the pregnant woman is nicotine-dependent, ask her about her understanding of the potential harmful effects of smoking on the foetus.

Discuss in a collaborative way the:

- benefits of stopping smoking for her and the foetus
- options and support for quitting smoking
- availability of nicotine replacement therapy (NRT) and when it is appropriate
- risks of passive smoking to her and the foetus, especially if her partner smokes.

Offer:

- tobacco Quitline 13 7848 (13 QUIT) and information brochures
- the brief intervention approach to smoking cessation known as the '5 As'
- extended psychosocial interventions for high nicotine dependence
- SIDS guidelines.

8.5.2 Mental illness

Half of all cigarettes are consumed by people who have depression. Psychiatric co-morbidity is common and some estimates suggest that less than 25 per cent of smokers have no mental illness. Treatment of any underlying mental illness should also be taken into consideration during withdrawal.

8.5.3 Medications

Smokers need more of some medications because of effects on liver enzymes. This needs to be considered during withdrawal. Medications affected include insulin, antipsychotics, pain relievers and anti-coagulants. Similar effects can occur with alcohol, resulting in a decreased tolerance and, with caffeine, resulting in toxicity.

8. Nicotine

8.6 Continuing care

Post-withdrawal interventions should be used, such as the Quitline, motivational enhancement, relapse prevention, cognitive behavioural therapies and other psychosocial interventions and self-help groups. Referrals to general practitioners or pharmacists are also encouraged for the patient's ongoing support and advice on pharmacotherapies.

Acupuncture, hypnosis and relaxation therapy may also be offered or requested for smoking cessation, but they have not proven to be effective in randomised control trials.

There is a range of information on the internet concerning tobacco and quitting smoking. Many links are available at www.quitnow.info.au

For general information on continuing care after withdrawal, see section 2.

References

References and suggested readings list

American Psychiatric Association, (2004). *The diagnostic and statistical manual of mental disorders. 4th ed.* Washington: American Psychiatric Press.

Australian Government Department of Health and Ageing, (2003). *Clinical guidelines and procedures for the use of naltrexone in the management of opioid dependence.* Canberra: Australian Government.

Bateman DN, McElhatton PR, Dickinson D, Wren C, Matthews JN, O’Keeffe M, Thomas SH, (2004). ‘A case control study to examine the pharmacological factors underlying ventricular septal defects in the north of England’. *Eur J Clin Pharmacol.* November 60 (9), pp.635-641.

Black E, Degenhardt L, Stafford J, (2006). *New South Wales drug trends 2005: findings from the illicit drug reporting system (IDRS).* Sydney: National Drug and Alcohol Centre, <http://ndarc.med.unsw.edu.au>.

Budney A, et al. (2001). *Archives of General Psychiatry.* 58 (10), pp.917-924.

Budney AJ, Hughes JR, Moore BA, Vandrey R, (2004). ‘Review of the Validity and Significance of Cannabis Withdrawal Syndrome’. *Am J Psychiatry.* 161, pp.1967-1977.

Burns L, Mattick RP, Lim K, Wallace C, (2007). ‘Methadone in pregnancy: treatment retention and neonatal outcomes’. *Addiction.* Feb 102 (2), pp.264-270.

Burns TL, Ineck JR, (2006). ‘Cannabinoid analgesia as a potential new therapeutic option in the treatment of chronic pain [review][81 refs]’. *Ann Pharmacother.* 40 (2), pp.251-260.

Center for Substance Abuse Treatment, (2006). *Detoxification and substance abuse treatment: treatment improvement protocol (TIP) series, no. 45.* Rockville, Maryland: Substance Abuse and Mental Health Services Administration.

Commonwealth Government of Australia, (2006). *National clinical guidelines for the management of drug use during pregnancy, birth and the early development years of the newborn.* NSW Department of Health, www.health.nsw.gov.au/pubs/2006/pdf/ngc_druguse.pdf.

Dean A, McGuire T, (2004). ‘Psychostimulants in pregnancy and lactation’. In: Baker A, Lee N, Jenner L (ed), *Models of intervention and care for psychostimulant users. National drug strategy monograph series.* 2nd ed. Canberra: Australian Government Department of Health and Ageing.

Degenhardt L, Hall W, (2001). ‘The relationship between tobacco use, substance-use disorders and mental health: results from the National Survey of Mental Health and Well-being’. *Nicotine Tobacco Res.* (3), pp.225-234.

Dunn M, Degenhardt L, Stafford J, (2006). *NSW trends in ecstasy and related drug markets 2005: findings from the party drugs initiative (PDI).* Sydney: National Drug and Alcohol Research Centre, <http://ndarc.med.unsw.edu.au>.

Gowing L, Ali R, White J, (2006). *Buprenorphine for the management of opioid withdrawal (review).* The Cochrane Collaboration, John Wiley and Sons.

Gowing L, Ali R, White J, (2006). *Opioid antagonists under heavy sedation or anaesthesia for opioid withdrawal (review).* The Cochrane Collaboration, John Wiley and Sons.

References

- Gowing L, Proudfoot H, Henry-Edwards S, Teesson M, (2001). *Evidence supporting treatment: the effectiveness of interventions for illicit drug use*. Canberra: Australian National Council on Drugs.
- Haber P, Lintzeris N, Proude E, Lopatko O, (2009). *Guidelines for the treatment of alcohol problems*. Commonwealth of Australia: Australian Government Department of Health and Ageing.
- Hamilton M, King T, Ritter A, editors, (2004). *Drug use in Australia: preventing harm*. Melbourne: Oxford University Press.
- Handelsman L, Cochrane KJ, Aronson MJ, et al, (1987). 'Two new rating scales for opiate withdrawal'. *Am J Drug Alcohol Abuse*. 13 (3), pp.293-308.
- Hepatitis C: a management guide for general practitioners (RACGP) 1999, updated 2003*. Royal Australian College of General Practitioners, www.racgp.org.au.
- Jarvis T, Tebbutt J, Mattick RP, Shand F, (2005). *Treatment approaches for alcohol and drug dependence — an introductory guide. 2nd ed*. Sussex, England: John Wiley and Sons.
- Jenner L, Saunders JB, (2004). 'Psychostimulant withdrawal and detoxification'. In: Baker A, Lee NK, Jenner L (ed), *Models of intervention and care for psychostimulant users. National drug strategy monograph series No. 51. 2nd ed*. Canberra: Australian Government Department of Health and Ageing, www.nationaldrugstrategy.gov.au.
- Karila L, Cazes O, Danel T, Reynaud M, (2006, Feb). 'Short and long-term consequences of prenatal exposure to cannabis'. *J Gynecol Obstet Biol Reprod (Paris)*. 35 (1), pp.62-70.
- Katzung BG, (2006). *Basic and clinical pharmacology. 9th ed*. McGraw-Hill Companies, www.ciap.health.nsw.gov.au.
- McCarthy JJ, (2012). 'Intrauterine abstinence syndrome (IAS) during buprenorphine inductions and methadone tapers: can we assure the safety of the fetus?' *The Journal of Maternal-Fetal and Neonatal Medicine*. 25 (2), pp.109-112.
- MIMS Online (2006). Available at: www.mimsonline.com.au, www.ciap.health.nsw.gov.au.
- Mayo-Smith MF, (1997). 'Pharmacological management of alcohol withdrawal: a meta-analysis and evidence-based practice guideline'. *JAMA*. 278, pp.144-151.
- Moran P, Madgula R, et al, (2009). 'Substance misuse during pregnancy: its effects and treatment'. *Fetal and Maternal Medicine Review*. 20 (1), pp.1-16.
- Murray P, Linterzeris N, Gijssbers A, Dunlop A, (2002). *Prescribing for drug withdrawal. Clinical treatment guidelines for alcohol and drug clinicians, no. 9*. Fitzroy, Victoria: Turning Point Alcohol and Drug Centre.
- Naranjo C, Sellers E, (1986). 'Clinical assessment and pharmacotherapy of alcohol withdrawal syndrome'. In: Galanter M (ed), *Recent developments in alcoholism*. New York: Plenum Press. pp.265-281.
- National Cannabis Prevention and Information Centre, (2009). *Management of cannabis use disorder and related issues: a clinician's guide*. Sydney: University of New South Wales.
- National Centre for Education and Training of Addiction (NCETA) Consortium, (2004). *Alcohol and other drugs: a handbook for health professionals*. Australian Government Department of Health and Ageing.
- National Drug Strategy, (2001). *National clinical guidelines and procedures for the use of buprenorphine in the treatment of heroin dependence*. Canberra: Department of Health and Aged Care, www.nationaldrugstrategy.gov.au.

References

- National Health and Medical Research Council, (1991). *Guidelines for the prevention and management of benzodiazepine dependence*. Canberra: AGPS.
- National HCV Testing Policy Expert Reference Committee, (2012). *National hepatitis C policy*. Canberra: Commonwealth of Australia, www.sam.uq.edu.au/media/293628/hepc_testing_policy_2012.pdf.
- NCETA Consortium, (2004). *Alcohol and other drug problems: a handbook for health professionals*. Australian Government Department of Health and Ageing, <http://nceta.flinders.edu.au/nceta/resource-kits/>.
- Novak H, editor, (1989). *NSW strategic plan – nurse education and nursing management of alcohol and other drugs*. Sydney: CEIDA.
- O'Brien S, (2004). *Treatment options for heroin and other opioid dependence: a guide for frontline workers*. Canberra: Australian Government Department of Health and Ageing, www.nationaldrugstrategy.gov.au.
- Queensland Health, (2003). *Strategic plan for people with dual diagnosis 2003*. Brisbane: Queensland Government.
- Queensland Health, (2010). *Queensland Health dual diagnosis clinical guidelines*. Brisbane: Queensland Health
- Queensland Health, (2010). *Queensland Health dual diagnosis clinical toolkit*. Brisbane: Queensland Health
- Queensland Health, (2007). *Queensland plan for mental health 2007–2017*. Brisbane: Queensland Government.
- Queensland Health, (2008). *Queensland Health policy: service delivery for people with dual diagnosis (co-occurring mental health and alcohol and other drug problems)*. Brisbane: Queensland Government.
- Queensland Health, (2007). *Queensland Health strategic plan for multicultural health 2007–2012*. Brisbane: Queensland Government.
- Queensland Health. *Queensland Health smoking management policy: implementation guide*. Brisbane: Queensland Health.
- Queensland Health, (2007). *Protecting Queensland children: Queensland Health policy statement and guidelines on the management of child abuse and neglect in children and young people (0–18 years)*. Brisbane: Queensland Health.
- Queensland Health, (2009). *Queensland Health smoking management policy*. Revised January 2009. Brisbane: Queensland Health.
- Queensland Health, (2009). *Queensland needle and syringe program policy for primary programs*. Revised 2009. Brisbane: Queensland Government.
- Queensland Health, (2011). *2011–2012 Queensland drug action plan*. Brisbane: Queensland Government.
- Queensland Health, (2006). *Queensland health policy statement: unborn child high-risk alerts: from the Department of Child Safety to Queensland health*. Brisbane: Queensland Government.
- Queensland Health, (2008). *Child safety – health professionals' capability requirements and reporting responsibilities: human resources policy*. Brisbane: Queensland Government.
- Queensland Health, (2004). *Psychostimulants information for health workers*. Queensland.
- Queensland Health. *Queensland Opioid Treatment program: clinical guidelines 2008*.
- Queensland Health, (2005). *Queensland HIV, hepatitis C and sexually transmissible infections strategy, 2005–2011*. www.health.qld.gov.au/sexhealth/documents/28206.pdf.

References

- Ritter A, Linterzeris N, (2004). 'Specialist interventions in treating clients with alcohol and drug problems'. *In: Hamilton M, King T, Ritter A (ed), Drug use in Australia: preventing harm.* Melbourne: Oxford University Press.
- Rog DJ, Nurmikko TJ, Friede T, Young CA, (2005). 'Randomized, controlled trial of cannabis-based medicine in central pain in multiple sclerosis (randomized controlled trial)'. *Neurology.* 65 (6), pp.812-819.
- Saunders JB, Jenner M, Jenner L, Yang J, (2002). *Clinical protocols for detoxification general practice and community settings 2002.* Brisbane: Queensland Health.
- Saunders JB, Yang J, (2002). *Clinical protocols for detoxification in hospitals and detoxification facilities.* Brisbane: Queensland Health.
- Shand F, Gates J, Fawcett J, Mattick R, (2003). *Guidelines for the treatment of alcohol problems.* Canberra: Australian Government Department of Health and Ageing, www.nationaldrugstrategy.gov.au.
- Shand F, Gates J, (2004). *Treating alcohol problems: guidelines for hospital staff.* Canberra: Australian Government Department of Health and Ageing, www.nationaldrugstrategy.gov.au.
- Smith E, Terplan M, (2009). 'Pharmacologic interventions for pregnant women enrolled in alcohol treatment'. *Cochrane Database of Systematic Reviews.* Issue 3: CD007361.
- Sullivan JT, Sykora K, Schneiderman J, Naranjo CA, Sellers EM, (1989). 'Assessment of alcohol withdrawal: the revised clinical institute withdrawal assessment for alcohol scale (CIWA-Ar)'. *British Journal of Addiction.* 84, pp.1353-1357
- Tucker T, Ritter A, Maher C, Jackson H, (2004). 'Naltrexone maintenance for heroin dependence: uptake, attrition and retention'. *Drug Alcohol Rev.* 23, pp.299-309
- Maccallum F, Blaszczyński A, Barker G, et al, (2003). *Working out problem gambling – assessment and case formulation – a practical skills training manual.*
- World Health Organization, (1992). *International statistical classification of diseases and related health problems, 10th revision.* Geneva: WHO.
- Zuspan FP, Gumpel JA, Mejia-Zelaya A, Madden J, Davis R, (1975). 'Fetal stress from methadone withdrawal'. *Am J Obstet Gynecol.* 122 (1), pp.43-46

References

Selected web sites and information lines

Alcohol and Drug Information Service (ADIS)

Provides information and resources regarding alcohol and drug services in Queensland
Phone: 1800 177 833

Alcohol and Other Drugs Council of Australia (ADCA)

www.adca.org.au

Alcoholics Anonymous

www.aa.org.au

Australian Drug Foundation

Provides drug fact sheets and resources regarding drug and alcohol use, including *Mulling it Over* booklet
www.adf.org.au

Australian Drug Information Network (ADIN)

Provides drug and alcohol information via websites and databases
www.adin.com.au

Turning Point Alcohol and Drug Centre Counselling online

This service is for anyone seeking help about their own drug use or the drug use of a family member, relative or friend. The service is free and available 24 hours a day, 7 days a week, across Australia
www.counsellingonline.org.au

Drug & Alcohol Multicultural Education Centre (DAMEC)

DAMEC helps bridge service gaps by assisting alcohol and other drugs service providers improve access for non-English-speaking-background (NESB) clients. DAMEC also works with NESB communities to develop resources and information on alcohol and other drugs
<http://www.directory.damec.org.au>

Austroads

Assessing fitness to drive
www.austroads.com.au

Family drug support

Provides information and support for people affected by someone's illicit drug use
www.fds.org.au

Al-anon, Alateen family support

Helps families and friends of alcoholics recover from the effects of living with someone who has problem drinking
www.al-anon.alateen.org/australia

Nar-anon family groups

Self-help support groups for families and friends of drug users
www.naranon.com.au

G-Line: 1800 633 635

Hepatitis C Council of Queensland

Provides information to people affected by hepatitis C and the community
www.hepqld.asn.au

Health Insurance Commission

Prescription shopping project and prescription shopping information service
<http://www.medicareaustralia.gov.au/provider/pbs/prescription-shopping/index.jsp>

Narcotics Anonymous

www.na.org.au

National Drug and Alcohol Research Centre

Provides drug facts sheets, drug and alcohol research and related information
<http://ndarc.med.unsw.edu.au>

National HCV Testing Policy Expert Reference Committee

National Hepatitis C Policy, 2012.
Commonwealth of Australia. 2012. Canberra.
http://www.som.uq.edu.au/media/293628/hepc_testing_policy_2012.pdf

Glossary

A wide range of terms has been listed to assist those who are not expert in the assessment of patients for withdrawal. This list has been adapted from *Ordinary People: Integrating Alcohol and Other Drug Management into Nursing Practice*, produced by Western Sydney Area Health Service in 1996.

Note: quotation marks denote that the expression is slang or jargon.

Alcohol-related brain damage (ARBD)

A generic term that encompasses chronic impairment of memory and higher mental functions associated with the frontal lobe and limbic system.

Ambulatory withdrawal

Managed withdrawal from a drug undertaken with the patient visiting the medical practitioner from home or travelling to and from a day care facility.

Amphetamine

A synthetic central nervous system stimulant. The term includes the three types of amphetamines: amphetamine, dexamphetamine and methamphetamine.

Antidepressant

One of a group of psychoactive drugs prescribed for the treatment of depressive disorders. Also used for other conditions such as panic disorder.

'Bad trip'

Substance users' jargon for an adverse effect of drug use, consisting of any mixture of the following feelings: losing control, distortions of body image, bizarre and frightening hallucinations, fears of insanity or death, despair, suicidal thoughts and strong negative mood. Physical symptoms may include sweating, palpitations, nausea and paraesthesia. A bad trip usually refers to the effect of a hallucinogen, but can also refer to amphetamines and other stimulants, antihistamines and sedatives, or hypnotics.

Barbiturate

One of the sedative-hypnotic groups of drugs that is now rarely seen in Australia. With increasing dosage they produce progressive

CNS depression, ranging from mild sedation to anaesthesia and death from respiratory depression. They are strongly dependence-inducing.

Benzodiazepine

One of the sedative-hypnotic groups of drugs. Introduced as safer alternatives to barbiturates, they have a general depressant effect that increases with the dose, from sedation to hypnosis to stupor. Benzodiazepines have significant potential for dependence. These are also referred to as minor tranquillisers.

Binge drinking

An episodic pattern of heavy drinking with periods of lesser alcohol consumption.

Blood alcohol level

The concentration of alcohol (ethanol) present in blood. The legal blood alcohol limit for Queensland drivers on their open licences is 0.05 g/100 mL.

Brief intervention

A treatment strategy in which a short structured therapy is offered (between 5 minutes and 2 hours) and typically on a single occasion. Aimed at helping a person to reduce or stop substance use.

Buprenorphine

A partial opioid agonist drug used in the treatment of opioid withdrawal and as a maintenance treatment for opioid dependence.

Cannabis

The generic name given to the psychoactive substances found in the marijuana plant *cannabis sativa*. The main active constituent is delta 9-tetrahydrocannabinol (THC).

Glossary

'Cap'

A small amount of heroin, wrapped in foil.

Cocaine

A central nervous system stimulant derived from the coca plant, used non-medically to produce euphoria or wakefulness. Often sold as white translucent, crystalline flakes or powder.

Continuing care

In the context of withdrawal management, continuing care means managing the transition to life after withdrawal, when patients are likely to have continuing issues arising from their drug dependence. Continuing care includes referral to counselling, maintenance treatment, self-help groups and family services.

Controlled drinking

Drinking that is moderated to avoid intoxication or the hazardous use of alcohol.

Craving

A very strong desire for a substance, or for the intoxicating effects of that substance.

Delirium tremens

An acute confusional state occurring during withdrawal from alcohol, characterised by rapid pulse, clouding of consciousness, dehydration, delirium, elevated body temperature, sweating, extreme fear, hypertension, tachycardia, tremor and hallucinations.

Dependence (criteria for substance dependence)

Dependence, as defined by DSM-IV (*Diagnostic and Statistical Manual of Mental Disorders, 4th Edition*), is a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

- Tolerance, as defined by either of the following:
 - a need for markedly increased amounts of the substance to achieve intoxication or desired effect
 - markedly diminished effect with continued use of the same amount of the substance.
- Withdrawal, as manifested by either of the following:
 - the characteristic withdrawal syndrome for the substance
 - the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.
- The substance is often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control substance use.
- A great deal of time is spent in activities necessary to obtain the substance (e.g. visiting multiple doctors or driving long distances), use the substance (e.g. chain-smoking), or recover from its effects.
- Important social, occupational or recreational activities are given up or reduced because of substance use.
- The substance use is continued, despite knowledge of having a persistent or recurrent physical or physiological problem that is likely to have been caused or exacerbated by the substance e.g. current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption.

Glossary

Depressant

Any substance that suppresses, inhibits or decreases some aspects of CNS activity. The main classes of central nervous system (CNS) depressants are sedatives, hypnotics, opioids and neuroleptics.

Detoxification

A now outmoded term for managed withdrawal from a drug of dependence: the process by which a person is withdrawn from a psychoactive substance on which they are dependent.

'Drop'

To overdose.

Ecstasy

(MDMA, 3,4-methylenedioxy-N-methylamphetamine)

A synthetic drug with stimulant effects on the central nervous system.

Comorbidity

In the context of withdrawal management, this refers to a person who has coexisting substance use and mental health problems.

'Fit'

A needle and syringe used for injecting drugs.

Foetal alcohol syndrome

A pattern of retarded growth and development, both mental and physical, caused to a child in utero by excessive alcohol consumption when the mother is pregnant.

'Flashbacks'

A perception disorder that can occur after a period (from months to years) following hallucinogen use. Flashbacks are a spontaneous recurrence of the feelings that occurred when the person was intoxicated with hallucinogens.

These feelings include visual distortions, physical symptoms, loss of ego boundaries or intense emotions. The flashbacks can last from a few seconds to a few hours.

GHB (gamma-hydroxybutyrate)

A central nervous system depressant, sometimes used illegally as an alternative to ecstasy, usually in liquid form.

Glue-sniffing

Inhaling fumes from glue, petrol or other volatile substances (also called inhalants, solvents) for their psychoactive effect.

Hallucinogen

A substance that alters perception, typically by inducing illusions or even hallucinations. Hallucinogens can include naturally occurring compounds (e.g. 'magic mushrooms') and synthetic chemicals. They are usually taken orally.

'Half-weight'

Half a gram of heroin.

'Hanging out'

Withdrawing from opioids.

'Hangover'

A state that follows excessive consumption of alcohol. Physical features may include fatigue, headache, thirst, vertigo, gastric disorders, nausea, vomiting, insomnia, fine tremors of the hands, and raised or lowered blood pressure. Psychological symptoms include anxiety, guilt, depression, irritability and extreme sensitivity. Usually lasts no more than 36 hours after alcohol has been cleared from the body.

Harm minimisation and harm reduction

A drug strategy based on a harm-minimisation approach has the following primary objectives:

- to minimise the harm and the social problems to the individual and the community resulting from the use of drugs

Glossary

- to reduce the prevalence of hazardous levels and patterns of drug use in the community
- to prevent the initiation into harmful or hazardous drug use, especially by young people.

Harmful use

A pattern of substance use that is causing damage to health, either physical (e.g. hepatitis following the injecting of drugs) or mental (e.g. depressive episodes after heavy alcohol intake). Harmful use commonly has adverse social consequences.

Hashish

A concentrated form of cannabis.

Hazardous use

A pattern of substance use that increases the risk of harmful consequences for the user.

Heroin

Heroin is the most common illicit opioid drug of dependence. It is usually intravenously injected, but it can also be smoked.

'Ice'

The strongest form of methamphetamine. It either comes as a crystalline powder or crystals and is white or translucent. It is the highest purity form of methamphetamine and is usually smoked or injected.

Illicit drug

A substance obtained and used illegally for its psychoactive or physical effect.

Inhalant

One of a group of gases and highly volatile compounds, or mixtures of compounds, that are inhaled for intoxicating effects. Inhalants are also called 'solvents' or 'volatile substances'.

Intoxication

The condition resulting from use of a psychoactive substance that produces behavioural or physical changes.

Ketamine

A dissociative general anaesthetic used legally for human and veterinary use, and traded illegally as a recreational drug.

LSD (lysergic acid diethylamide)

A hallucinogenic substance.

Maintenance therapy

A form of treatment of substance dependence by prescribing a substitute drug e.g. methadone for the treatment of heroin dependence.

Marijuana

See Cannabis.

Methadone

A long-acting synthetic opioid drug used in maintenance therapy for those who are dependent on opioids (prescribed in oral doses).

Methamphetamine

The most common illicit amphetamine, available in 'powder', 'base' or 'ice' form.

Morphine

An opioid drug.

Naloxone

An opioid receptor blocker that reverses the features of opioid intoxication. It is sometimes prescribed for the treatment of opioid overdose.

Naltrexone

A specific opioid antagonist similar to naloxone, but orally active and longer acting.

Narcotic

A chemical agent that induces stupor, coma or insensibility to pain. The term usually refers to opioids, which are called narcotic analgesics. In general use, this term is often used incorrectly to refer to illicit drugs.

Glossary

Narcotics Anonymous (NA)

A self-help group based on the 12-step philosophy of Alcoholics Anonymous, in which participants support each other in recovering or maintaining recovery from opioid dependence.

Narrowing of repertoire

A feature of dependence: the tendency of substance use to become progressively stereotyped around a self-imposed routine of custom and ritual. Characterised by reduced variation of dose and type of substance taken and of time, place and manner of self-administration.

Neuroadaptation

Physical dependence on a psychoactive substance. This means that a person has developed tolerance to the substance. If the drug is withdrawn, the person is likely to experience withdrawal symptoms.

Neuroleptic

One of a class of drugs used for treating acute and chronic psychoses. Also known as major tranquillisers and antipsychotics.

Nicotine

The major psychoactive substance in tobacco, which has both stimulant and relaxant effects. Smokers develop considerable tolerance and dependence to nicotine.

Opiate

One of a group of substances derived from the opium poppy with the ability to induce analgesia, euphoria and, in higher doses, stupor, coma and respiratory depression. This term excludes synthetic opioids.

Opioids

The generic term applied to alkaloids from the opium poppy, their synthetic analogues and similar compounds synthesised within the body.

Overdose

The use of any drugs in such an amount that acute adverse physical or mental effects are produced. An overdose is a dose that exceeds the individual's tolerance. Overdose may produce transient or lasting effects, or death.

PCP

(phencyclidine, phenylcyclohexylpiperidine)

A dissociative drug formerly used as an anaesthetic agent, with hallucinogenic and neurotoxic effects.

Pharmacotherapy

Drug treatment: in the context of withdrawal management, drug treatment for the symptoms and signs of withdrawal from a drug of dependence.

Polydrug use

Where a person uses more than one drug, often at the same time or following one another, and usually with the intention of enhancing, potentiating or counteracting the effects of another substance.

Psychoactive substance

A substance that, when ingested, affects mental processes.

Psychostimulants

A class of drug with stimulatory effects on the central nervous system. The psychostimulants most commonly used illicitly in Australia today are amphetamines, ecstasy and cocaine.

Psychotropic

In the most general sense, a term with the same meaning as 'psychoactive' (i.e. affecting the mind or mental processes).

'Rave'

A dance party, often involving the use of psychoactive substances, especially amphetamines and hallucinogens.

Glossary

Recreational use

Use of a drug, usually an illicit substance, in social circumstances. This term implies that the user is not dependent on the substance; it has the same connotations as 'social drinking'.

Rehabilitation

The process by which a person recovers from a substance use disorder to achieve an optimal state of health, psychological functioning and wellbeing.

Relapse

A return to substance use after a period of abstinence.

'Rush'

An immediate, intense, pleasurable effect that follows injection of certain substances (e.g. heroin, amphetamine, cocaine).

Sedative or hypnotic

Any of a group of central nervous system depressants that can relieve anxiety and induce calmness and sleep.

Selective withdrawal

Managed withdrawal of one drug of dependence from a person with multiple drug dependencies.

Solvent

See inhalant.

'Speed'

See amphetamine.

'Speedball'

A combination of a stimulant and an opioid (e.g. cocaine and heroin, amphetamine and heroin).

Steroid

One of a group of naturally occurring or synthetic hormones that affects chemical processes in the body, growth, and sexual and other physiological functions. Steroids can be taken orally or injected.

Stimulant

Any agent that activates, enhances or increases neural activity of the central nervous system. Stimulants include amphetamines, cocaine, caffeine and nicotine.

THC

Tetrahydrocannabinol, the main active constituent in cannabis.

Therapeutic community

A structured environment in which people with drug use problems live in order to achieve rehabilitation. Such communities are often specifically designed for drug-dependent people.

Tolerance

A decrease in response to a drug dose that occurs with continued use. Increased doses of the drug are required to achieve the effect originally produced by lower doses.

Tranquilliser

General term for several classes of drugs employed to manage symptoms of various mental disorders. The tranquillisers have a quieting or dampening effect on psychomotor processes without – except at high doses – interfering with consciousness and thinking. In this way they differ from the sedatives and hypnotics, which are used, among other things, to induce sleep. The term tranquilliser is often used to refer to any drug that is used for treating anxiety disorders.

Volatile substance

See inhalant.

Glossary

Wernicke's encephalopathy

An acute, life-threatening, neurological syndrome consisting of confusion, apathy, dullness, a dreamy delirium, palsies of the ocular muscles and of gaze, nystagmus and disturbances in equilibrium, and ataxia. Its most common cause is thiamine deficiency associated with long-term excessive use of alcohol. If not treated immediately with thiamine, the patient is likely to progress to an amnestic syndrome. In some cases, death can occur.

Withdrawal syndrome

A series of symptoms that occur when a person who has developed tolerance to a drug (after long or high dose use) stops or reduces use of the drug.

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Appendix A

Withdrawal services in Queensland

Queensland has a number of withdrawal services (also known as detoxification services). They include inpatient and outpatient; medicated and non-medicated; and government, non-government and private services.

Services change over time, so before referring, it's important to check first with the service or ADIS.

PUBLIC HEALTH WITHDRAWAL SERVICES

HADS (Hospital Alcohol Drug Service)

Royal Brisbane Hospital, Herston Road
Herston Qld 4029
(Inpatient withdrawal service only)
Phone 07 3646 8704

Salvation Army

Moonyah
Glenrosa Road
Red Hill Qld 4059
Phone 07 3369 0355

Fairhaven

4 Scarborough Street
Southport Qld 4215
07 5630 7939

Adolescent Drug and Alcohol Withdrawal Service (ADAWS)

36–40 Clarence Street
South Brisbane Qld 4101
Phone 07 3163 8400

PRIVATE WITHDRAWAL SERVICES

Brisbane Private Hospital Pty Ltd

Damascus Unit
259 Wickham Terrace
Brisbane Qld 4000
Phone 07 3834 6475

Belmont Private Hospital

Cnr Creek and Old Cleveland Rds
(PO Box 24)
Carina Qld 4152
Phone 07 3398 0111

Palm Beach/Currumbin Clinic

37 Bilinga Street
Currumbin Qld 4223
Phone 07 5534 4944

Pine Rivers Private Hospital

Dixon Street
(PO Box 2065)
Strathpine Qld 4500
Phone 07 3881 7222

Appendices

Appendix B

Assessment of intoxication and overdose

Patients who use drugs or alcohol often present intoxicated or having overdosed. The correct management of these conditions is an essential part of practice.

Intoxication occurs when a person's intake of a substance exceeds his or her tolerance and produces behavioural or physical abnormalities. It complicates the assessment and management of patients because:

- psychoactive drugs affect mood, cognition, behaviour and physiological functioning
- intoxication can have a major affect on informed consent to treatment and the validity of all further information reported by the patient
- intoxication can mimic or mask serious illness and injury
- patients who are aggressive or disruptive because they are intoxicated can risk their own safety or the safety of others
- severe intoxication can be life-threatening by altering physical and mental functions, leading to inappropriate actions or central nervous system depression and death.

Identifying intoxication and overdose

In withdrawal settings, always assess the possibility that the patient is intoxicated. Some serious medical conditions can mimic intoxication. Objective observations should be given more weight than the patient's report.

Managing intoxication

Assessment is urgent if intoxication is severe, and medical assessment is required if intoxication is worsening or affecting breathing, blood pressure or level of consciousness.

Identify the most recent drug type, dose and time consumed.

Consider the possibility that underlying illness (e.g. concussion, subdural haematoma, infections, diabetes or electrolyte disturbances) may be the cause of apparent intoxication.

Check for possible head injury if the patient is incoherent, disoriented or drowsy.

Monitor the airway if breathing is affected or consciousness is impaired, as death may occur from respiratory depression or aspiration pneumonia.

Keep intoxicated patients under observation until their intoxication diminishes and they are considered safe. If the intoxication does not diminish, assess the patient for other possible causes of the condition.

Managing suspected overdose

Monitor signs of intoxication to identify possible overdose (such as intoxication to the point of loss of consciousness) on the patient's arrival and then as frequently as the patient's state requires (usually 1–4 hourly). The Glasgow Coma Scale plus vital signs provide the best method of assessment.

Appendices

INDICATIONS OF INTOXICATION

Maladaptive behaviour

- Evidence of intoxication by history and physical examination
- Blood alcohol level by breath analysis. Saliva, urine or blood testing for alcohol and other drugs

Behavioural and physical signs

Alcohol: loss of control of voluntary movements, slurred speech, disinhibition, low blood pressure, smells of alcohol

Benzodiazepines: slurred speech, loss of control of voluntary movements, sedation, nystagmus (repetitive eye movement), low blood pressure, drooling, disinhibition

Opioids: pinpoint pupils, sedation, low blood pressure, slowed pulse, itching and scratching

GHB: rapid onset of drowsiness, disinhibition, dizziness, nausea, muscle spasms, movement and speech impairment

Cannabis: increased pulse, confusion, restlessness, excitement, hallucinations, anxious or panicky, disconnected from reality, paranoia, violent or suicidal behaviour

Psychostimulants

(amphetamines, cocaine and ecstasy):

increased confidence, excitement, euphoria, anxiety, agitation, speech, hypervigilance, increased body temperature and blood pressure, dry mouth, paranoia, psychotic features

LSD: anxiety, fear, frightening hallucinations, panic, feeling of loss of control, going mad, paranoia, violent or suicidal behaviour

Magic mushrooms (psilocybin): similar to LSD

PCP: similar to LSD, with euphoria, numbness, psychosis, aggression

Ketamine: thought disorder, hallucinations, perceptual distortion, anxiety, agitation, tachycardia, hypertension, analgesia and sensory dissociation

INDICATIONS OF OVERDOSE

In order of progressive impairment:

- increasing agitation
- cold and clammy skin
- pinpoint pupils (opioids)
- changing mental state (hallucinations, panic or deep depression)
- changes to heart rate (bradycardia or tachycardia) and/or blood pressure
- lowered body temperature
- slow and noisy respiration
- muscle twitching
- cyanosis

- pulmonary oedema
- stupor
- convulsions
- coma.

People with decreased levels of consciousness require:

- urgent medical assessment
- management in a medical setting
- monitoring of vital signs and neurological function
- examination and support of airway, breathing and circulation.

Appendices

Appendix C

Alcohol and Drug Services

Mental Health, Alcohol and Other Drugs Directorate

Level 2, 15 Butterfield Street,
Herston Qld 4006
PO Box 2368
Fortitude Valley Qld 4006
Phone 07 3328 9833

Metro North Mental Health Alcohol and Drug Service

3rd Floor, 'Biala'
270 Roma Street
Brisbane Qld 4000
Phone Freecall 1800 177 833

ADS Cairns Base Hospital Alcohol and Drug Unit

Lakeside Clinic
Cairns Base Hospital
Cairns Qld 4870
Phone 07 4226 6179

ADS Chermide

Alcohol and Drug Services
Community Health Centre
Prince Charles Hospital
490 Hamilton Road
Chermide South Qld 4032
Phone 07 3139 4633

ADS Chermide/Pine Rivers

Chermide Community Health
The Prince Charles Hospital Grounds
490 Hamilton Road
Chermide Qld 4032
Phone 07 3139 4080

ADS PA Hospital Drug and Alcohol Assessment Unit

4th floor, Main Hospital Building
PA Hospital
Ipswich Rd
Annerley Qld 4103
Ph 07 3176 5191

ADS Pine Rivers

Pine Rivers Community Health Centre
568 Gympie Rd
Strathpine Qld 4500
Phone 07 3139 4633

ADS Proserpine Hospital

Herbert Street
Proserpine Qld 4800
Phone 07 4813 9540

ADS Redcliffe

181 Anzac Avenue
PO Box 162
Redcliffe Qld 4020
Phone 1300 658 252

ADS Redlands/Wynnum

Redland Health Centre
Hospital Grounds
Weippin St
Cleveland Qld 4163
Phone 07 3488 4222

ADS Wynnum

Wynnum Health Services Centre
Whites Road
Wynnum Qld 4178
Phone 07 3488 4222

ATODS Bamaga

Primary Health
Addi St
PO Box 95
Bamaga Qld 4876
Phone 07 4090 4270 or 07 4069 3166

Appendices

ATODS Beenleigh

Beenleigh Community Health Centre
Mt Warren Boulevard
Beenleigh Qld 4207
Phone 07 3290 8923

ATODS Biloela

45 Kariboe St
PO Box 178
Biloela Qld 4715
Phone 07 4992 7000
(Visiting this service from Biloela Hospital)

ATODS Browns Plains

Community Health Centre
Cnr Middle Rd and Wineglass Drive
Hillcrest
PO Box 1111
Browns Plains Qld 4118
Phone 07 3290 8923

ATODS Bundaberg

Margaret Rose Centre
312 Bourbong St
Bundaberg Qld 4670
Phone 07 4150 2740

ATODS Caboolture

Caboolture Community Health
McKean Street
Caboolture Qld 4510
Phone 1300 658 252

ATODS Cairns

31 Shields St
Cairns Qld 4870
Phone 07 4226 6179
Phone 07 4226 3900

ATODS Cairns Day Detox

Cairns Base Hospital
Cairns Qld 4870
Phone 07 4226 6179

ATODS Caloundra

PO Box 547
Nambour Hospital
Nambour Qld 4560
Phone 07 5470 6869

ATODS Charleville

Primary Care
Community Health Unit
2 Eyre St
Charleville Qld 4470
Phone 07 4650 5300

ATODS Cherbourg

Barambah Avenue
PO Box 342
Cherbourg Qld 4605
Phone 07 4168 1072

ATODS Chinchilla

Chinchilla Health Service
Chinchilla Hospital
Slessor St
Chinchilla Qld 4413
PO Box 365
Chinchilla Qld 4413
Phone 07 4662 8807

ATODS Cooktown

Cooktown Hospital
Hope Street
PO Box 101
Cooktown Qld 4871
Phone 07 4043 0190

ATODS Emerald

Emerald Base Hospital
Hospital Road
Emerald Qld 4720
Phone 07 4983 9700

ATODS Gladstone

Flinders Street
PO Box 299
Gladstone Qld 4680
Phone 07 4976 3364

ATODS Gold Coast

Ground Floor
Quarters 1
Northside Clinic
Gold Coast Hospital
108 Nerang St
Southport Qld 4215
Phone 07 5519 8777

Appendices

ATODS Goodna

Community Health Centre
81 Queen Street
Goodna Qld 4300
Phone 07 3818 4800

ATODS Goondiwindi

Goondiwindi (Outreach from Warwick Hospital)
Phone 07 4660 3813

ATODS Gympie

Community Health Centre
20 Alfred Street
Gympie Qld 4570
Phone 07 5489 8777

ATODS Hervey Bay

The Village Community Health Centre
34 Torquay Road
Pialba Qld 4655
Phone 07 4122 8733

ATODS Inala

Community Health Centre
Wirraway Parade
Inala Qld 4077
Phone 07 3275 5300

ATODS Indigenous Women's Support Group

Douglas Shire Indigenous Family
Support Service
9 Hospital Street
Mossman Qld 4873
Phone 07 4048 1200

ADS Indooroopilly (youth team)

Alcohol and Drug Service
Finney Road
Indooroopilly Qld 4068
Phone 07 3878 3911

ATODS Ingham

Community Health (within hospital)
2-16 McIlwraith St
Ingham Qld 4850
Phone 07 4720 3050

ATODS Inglewood

Inglewood (outreach from Warwick)
Phone 07 4660 3813

ATODS Innisfail

Community Health Centre
87 Rankin Street
Innisfail Qld 4860
Phone 07 4061 5637

ATODS Ipswich/West Moreton

Ipswich Community Health
Health Plaza
Bell Street
Ipswich Qld 4305
Phone 07 3817 2400

ADS Keperra

Alcohol and Drug Service
Community Health Centre
Keperra Qld 4054
Phone 07 3335 8888

ATODS Kingaroy

Community Health Centre
166 Youngman St
PO Box 333
Kingaroy Qld 4610
Phone 07 4162 9220

ATODS Lockhart River

c/-Primary Health Care Centre
Lockhart River Qld 4871
Phone 07 4060 7155

ATODS Logan

Logan Central Community Health Centre
97-103 Wembley Road
Logan Qld 4207
Phone 07 3290 8923

ATODS Longreach

Community Health Centre
18 Duck Street
PO Box 221
Longreach Qld 4730
Phone 07 4652 5500

Appendices

ATODS Mackay

18 Nelson Street
PO Box 688
Mackay Qld 4740
Phone 07 4968 3858

ATODS Mareeba (Tablelands)

Community Health Centre
21 Lloyd Street
Mareeba Qld 4880
Phone 07 4092 9365

ATODS Maroochydore

15–17 Ocean Street
Maroochydore Qld 4558
Phone 07 5470 6869

ATODS Maryborough/Hervey Bay

Bauer Wiles Building
Community Health Centre
167 Neptune Street
PO Box 301
Maryborough Qld 4650
Phone 07 4122 8733

ATODS Miami Opioid Clinic

Southside Clinic
2019 Gold Coast Highway
PO Box 44
Miami Qld 4220
Phone 07 5576 9020

ATODS Millmerran

Millmerran (outreach from Warwick Hospital)
Phone 07 4660 3813

ATODS Moranbah

Community Health Centre
Cnr Mills Avenue and Elliot Street
PO Box 99
Moranbah Qld 4744
Phone 07 4968 3858

ATODS Mossman

Douglas Shire Multipurpose Health Service
9 Hospital Street
Mossman Qld 4873
Phone 07 4084 1232

ATODS Mount Isa

75 Camooweal Street (3 & 4)
PO Box 2172
Mount Isa Qld 4825
Phone 07 4749 3821

ATODS Nambour

Nambour Hospital
PO Box 547
Nambour Qld 4560
Phone 07 5470 6869

ATODS Noosa

14–16 Bottlebrush Avenue
Noosa Heads Qld 4567
PO Box 1060
Phone 07 5470 6869

ATODS Rockhampton

5/155 Alma Street
PO Box 501
Rockhampton Qld 4700
Phone 07 4920 5500

ATODS Roma

Primary Health Centre
59–61 Arthur Street
PO Box 1030
Roma Qld 4455
Phone 07 4624 2977

ATODS Stanthorpe

Stanthorpe
(Visiting service from Warwick)
Phone 07 4660 3738

ATODS Texas

Texas
(Visiting service from Warwick)
Phone 07 4660 3738

ATODS Thursday Island

Community Health Centre
Douglas Street
PO Box 624
Thursday Island Qld 4875
Phone 07 4069 0423

Appendices

ATODS Toowoomba

Toowoomba Health Service
(PMB 2)
Toowoomba Hospital
Pechey Street
Toowoomba Qld 4350
Phone 07 4616 6100

ATODS Townsville

35 Gregory Street
(Behind old hospital)
North Ward Qld 4810
Phone 4778 9677

ATODS Tweed Heads

145 Wharf Street
Tweed Heads NSW 4217
Phone 07 5506 6800

ATODS Warwick

56 Locke Street
Warwick Qld 4370
Phone 07 4660 3813

ATODS Weipa

Weipa Hospital
John Evans Drive
Weipa Qld 4874
Phone 07 4082 3900

ATODS Whitsunday

Community Health Centre
Altman Ave
Cannonvale Qld 4802
Phone 07 4948 7633

ATODS Wondai

Bramston Street
PO Box 98
Wondai Qld 4606
Phone 07 4162 9220

ATODS Woorabinda

Carbine Street
Woorabinda Qld 4702
Phone 07 4913 2800

ATODS Yeppoon

Capricorn Coast Hospital and Health Service
8 Hoskyn Drive
Yeppoon Qld 4703
Phone 07 4913 3000

Appendices

Appendix D

Suicide risk

Immediate management

The most important concern during the assessment process is the safety of the person being assessed. The level of observation and supervision before and after the assessment while waiting for referral is an important issue. Is the person medically fit enough to participate in the interview and or do they require a medical assessment?

Suicide risk ratings and actions for community-based services

Guidelines have been developed to manage patients with possible suicidal behaviour in general community settings (specifically drug and alcohol services), emergency departments, general hospital wards, mental health inpatient facilities and community mental health services. (See Chapter 6, Queensland Health Dual Diagnosis, Clinician Tool Kit, *Queensland Health Dual Diagnosis Clinical Guidelines: Co-occurring Mental Health and Alcohol and Other Drug Problems*, 2008.)

In general community health settings, including drug and alcohol services, follow these points:

- If there is any **immediate** risk of harm to the patient, staff or others, follow local protocols.
- If there is a **high or intermediate** risk of suicide, the clinician ensures the person is in a safe and secure environment and that they are assessed by mental health services within 24 hours. The clinician ensures contingency plans are in place for re-assessment if distress or symptoms escalate.
- If there is a **low** risk, make an appointment with mental health services within 24–48 hours. The clinician ensures that contingency plans are in place for re-assessment if distress or symptoms escalate.

Referral to mental health services: follow-up arrangements and care planning

Local processes need to be developed that are well known and maintained to create referrals to mental health services.

A preliminary assessment by drug and alcohol staff needs to be conducted before this referral is made. Negotiations then need to occur regarding referral to the mental health service.

If you are unable to provide support yourself, you must contact an appropriate service and formally transfer ongoing responsibility for the patient. The key staff member managing the assessment must be identified to the patient and relevant supports.

The follow-up appointment times and place, what 24-hour supports are available and contingency plans need to be communicated to the patient and supports. A management plan should be negotiated.

Any further contact or information regarding drug and alcohol services, including withdrawal services, should be arranged at an appropriate time in the process.

Appendices

Appendix E

Screening for domestic violence

Routine screening for domestic violence is a component of the ATODS screening tools developed to help identify and respond to domestic violence. The form and further information is available from your local ATOD service.

Appendices

Appendix F

Supportive care protocol

Follow this protocol and record findings in addition to physical observations at least every four hours.

Check withdrawal severity (with withdrawal scale)	
Offer fluids	
Check general health	<ol style="list-style-type: none"> 1 Consciousness 2 Blood pressure 3 Self-report
Check physical comfort	<ol style="list-style-type: none"> 1 Pillows 2 Blankets 3 Hot packs
Orientate	<ol style="list-style-type: none"> 1 Time 2 Place 3 Person
Check environment	<ol style="list-style-type: none"> 1 Calm 2 Quiet 3 Low lighting 4 Privacy 5 Safety 6 Self-report 7 Supportive person(s)
Reassure	<ol style="list-style-type: none"> 1 Allay concerns and fears 2 Give positive encouragement 3 Offer information

Source: Naranjo C, Sellers E, (1986). Clinical assessment and pharmacology of alcohol withdrawal syndrome . *In:* Galanter M (ed), *Recent Developments in Alcoholism*. 1st ed. New York: Plenum Press. pp.265-281.

Appendices

Appendix G

Guidelines for coping skills

Adapted from: National Health and Medical Research Council, *Guidelines for the Prevention and Management of Benzodiazepine Dependence*, Canberra: AGPS, 1991.

Relaxation

Preparation

1. Sit in a comfortable chair or lie down somewhere comfortable in a quiet, airy room where you will not be interrupted.
2. If you are sitting, take off your shoes, uncross your legs and rest your arms on the arms of a chair.
3. If you are lying down, lie on your back with your arms at your sides and cover yourself with a blanket.
4. Close your eyes, notice how you are breathing and where the muscle tensions are.

Breathing

1. Start to breathe slowly and deeply, expanding your abdomen as you breathe in, then raising your rib cage to let more air in, until your lungs are filled right to the top.
2. Hold your breath for a couple of seconds and then breathe out slowly, allowing your rib cage and stomach to relax and empty your lungs completely.
3. Keep this slow, deep, rhythmic breathing going throughout your relaxation session.

Relaxing

After you have your breathing pattern established, start the following sequence: tense each part of the body on the in-breath, hold your breath while you keep your muscles tense, then relax and breathe out at the same time.

1. Curl your toes hard and press your feet down, then relax.
2. Press your heels down and bend your feet up, then relax.
3. Tense your calf muscles, then relax.
4. Tense your thigh muscles, straighten your knees, making your legs stiff, then relax.
5. Make your buttocks tight, then relax.
6. Tense your stomach, then relax.
7. Bend your elbows and tense the muscles of your arms, then relax.
8. Hunch your shoulders and press your head back, then relax.
9. Clench your jaw, frown and screw up your eyes really tight, then relax.
10. Tense all your muscles together, then relax. Remember to breathe deeply and be aware when you relax of the feeling of physical wellbeing and heaviness spreading through your body.
11. After you have done the whole sequence and you are still breathing slowly and deeply, imagine something pleasant e.g. a beautiful country scene. Try to 'see' whatever you have chosen as clearly as possible, concentrating your attention on it for 30 seconds. Do not hold your breathing during this time. Continue to breathe as you have been doing. After this, go on to visualise another peaceful object of your choice in a similar fashion.
12. Lastly, give yourself the instruction that when you open your eyes you will be perfectly relaxed but alert.

The six-second breath

Controlling your rate of breathing is one of the most important things you can do to stop your anxiety from getting out of control.

If you keep your breathing to one breath every six seconds this will help: breathe in over three seconds and out over the next three seconds. This can be in stages (e.g. in-in-in, out-out-out).

Appendices

The six-second breath can be used anywhere and any time you feel anxious. It does pay, however, to practise this technique a few times every day so that you will have it rehearsed for when you really need it.

Sleep

Disturbed sleep is one of the features of withdrawal. It is not uncommon to experience difficulty falling asleep, have disturbing dreams or nightmares, wake with night sweats, wake up in the middle of the night, or wake up early in the morning. It can take a number of weeks before your sleep pattern returns to normal. It is important to remember that disturbed sleep is a normal part of withdrawal and that it is not permanent.

Hints for better sleep

1. Have a comfortable sleeping environment.
2. Do not exercise before bedtime. Exercise earlier in the day to increase physical tiredness.
3. Lie down to go to sleep only when you are actually sleepy.
4. Do not use your bed for activities other than sleeping (sex is the only exception to this rule).
5. If you do not fall asleep within about 30 minutes of turning out the light, get up, go to another room, and do something that is not too stimulating (e.g. watch TV).
6. If you return to bed and still cannot sleep, repeat step 5. Do this as often as necessary until you fall asleep within 30 minutes of going to bed.
7. If you wake up in the middle of the night and cannot go back to sleep, follow steps 5 and 6.
8. Get up at the same time every morning, regardless of how long you have slept. This will help your body to develop a regular sleep rhythm.
9. Do not nap during the day.
10. Do some form of relaxation before sleeping.
11. Most of the thinking and worrying that we do in bed needs to be done. It just does not need to be done in bed. Take time earlier in the day for thinking and worrying.
12. Avoid stimulants such as caffeine or cigarettes late at night and cut down on your caffeine consumption during the day. Alcohol can make you sleepy, but it also has a waking effect after several hours' sleep so that it often results in a poor night's sleep overall. Hot drinks such as chamomile or valerian tea, or warm milk (with nutmeg) late at night can help put you to sleep.

Diet

1. Drink lots of fluids: at least two litres a day. Water with a dash of lemon juice, fruit juices, cordial mixed with water and non-fizzy mineral water are very good. Also, try to keep the fluids going in throughout the day, taking small sips all the time.
2. Take nourishing meals in a relaxed environment. Avoid large meals. Try to eat small meals and snacks throughout the day rather than one big meal a day, and chew your food well.
3. If you have indigestion, avoid greasy, fried, fatty foods or large amounts of fatty meat.

Craving

1. Cravings are usually only very severe for short periods (usually less than one hour), then the severity of the craving reduces to a level that is easier to deal with. The goal is to get through this severe period.
2. Delay the decision for one hour as to whether you will use.
3. Distract yourself with some activity during this hour.
4. After an hour, ask yourself 'Why don't I want to use?' and 'What have I got to lose?'

Appendices

Appendix H

Withdrawal assessment scales

Withdrawal rating scales are not to be used as diagnostic tools as many other conditions may produce similar signs and symptoms, for example:

- medical conditions (such as sepsis, hepatic encephalopathy, severe pain, other causes of tremor)
- psychiatric conditions (such as anxiety disorder)
- other drug withdrawal syndromes (such as benzodiazepine, stimulant or opiate withdrawal).

They should not be used to direct medication (for example, alcohol withdrawal symptom-triggered regimens) in patients with these conditions, which would include most hospitalised patients. Withdrawal scales have a limited role under these circumstances, and health professionals should consult a specialist drug and alcohol clinician about monitoring and management of withdrawal.

Scoring of withdrawal scales may be highly variable in clinical practice and often not reproducible, therefore clinicians should review scores before making clinical decisions about ongoing management.

The following forms are available for use in Queensland Health:

Alcohol

- CIWA-AR
- AWS

Amphetamine

- Amphetamine Withdrawal Scale

Benzodiazepines

- CIWA-B

Opioids

- OOWS (Objective Opioid Withdrawal Assessment Scale)
- SOWS (Subjective Opioid Withdrawal Assessment Scale)

Cannabis

- Cannabis withdrawal chart.

CIWA-AR assessment for alcohol withdrawal

Key to scoring: <10 mild, 10–20 moderate, >20 severe

Nausea and vomiting

Ask “Do you feel sick to your stomach? Have you vomited?” And observe.

- 0 No nausea and no vomiting
- 1 Mild nausea with no vomiting
- 2
- 3
- 4 Intermittent nausea with dry retching
- 5
- 6
- 7 Constant nausea, frequent dry heaves and vomiting

Tremor

Observe patient’s arms extended and fingers spread apart.

- 0 No tremor
- 1 Not visible, but can be felt fingertip to fingertip
- 2
- 3
- 4 Moderate with patient’s arms extended
- 5
- 6
- 7 Severe, even with arms not extended

Paroxysmal sweats

- 0 No sweat visible
- 1 Barely perceptible sweating, palms moist
- 2
- 3
- 4 Beads of sweat obvious on forehead
- 5
- 6
- 7 Drenching sweats

Anxiety

Observe and ask “Do you feel nervous?”

- 0 No anxiety, at ease
- 1 Mildly anxious
- 2
- 3
- 4 Moderately anxious, or guarded so anxiety is inferred
- 5
- 6
- 7 Equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions

Agitation

- 0 Normal activity
- 1 Somewhat more than normal activity
- 2
- 3
- 4 Moderately fidgety and restless
- 5
- 6
- 7 Paces back and forth during most of the interview, or constantly thrashes about

Tactile disturbances

Ask “Have you any itching, pins and needles sensations, any burning, any numbness or do you feel bugs crawling on or under your skin?”

- 0 None
- 1 Very mild itching, pins and needles, burning or numbness
- 2 Mild itching, pins and needles, burning or numbness
- 3 Moderate itching, pins and needles, burning or numbness
- 4 Moderately severe hallucinations
- 5 Severe hallucinations
- 6 Extremely severe hallucinations
- 7 Continuous hallucinations

Auditory disturbances

Ask “Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing you? Are you hearing things you know are not there?” and observe.

- 0 Not present
- 1 Very mild harshness or ability to frighten
- 2 Mild harshness or ability to frighten
- 3 Moderate harshness or ability to frighten
- 4 Moderately severe hallucinations
- 5 Severe hallucinations
- 6 Extremely severe hallucinations
- 7 Continuous hallucinations

Visual disturbance

Ask “Does the light appear to be too bright? Is its colour different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?” and observe.

- 0 Not present
- 1 Very mild sensitivity
- 2 Mild sensitivity
- 3 Moderate sensitivity
- 4 Moderately severe hallucination
- 5 Severe hallucinations
- 6 Extremely severe hallucinations
- 7 Continuous hallucinations

Headaches, fullness in head

Ask “Does your head feel different? Does it feel like there is a band around your head?” Do not rate for dizziness or light-headedness. Otherwise rate severity.

- 0 Not present
- 1 Very mild
- 2 Mild
- 3 Moderate
- 4 Moderately severe
- 5 Severe
- 6 Very severe
- 7 Extremely severe

Orientation and clouding of the senses

Ask “What day is it? Where are you? Who am I?”

- 0 Oriented and can do serial additions
- 1 Cannot do serial additions and uncertain about date
- 2 Disorientated for date by no more than 2 calendar days
- 3 Disorientated for date by more than 2 calendar days
- 4 Disorientated for place and/or person

Alcohol Withdrawal Scale – AWS

Key to scoring - <4 mild; 5–14 moderate; >15 severe

Perspiration

- 0 No abnormal sweating
- 1 Moist skin
- 2 Localised beads of sweat, e.g. on face, chest
- 3 Whole body wet from perspiration
- 4 Profuse maximal sweating – clothes, linen are wet

Tremor

- 0 No tremor
- 1 Slight tremor
- 2 Constant slight tremor of upper extremities
- 3 Constant marked tremor of extremities

Anxiety

- 0 No apprehension or anxiety
- 1 Slight apprehension
- 2 Apprehension or understandable fear (e.g. of withdrawal symptoms)
- 3 Anxiety occasionally accentuates to a state of panic
- 4 Constant panic-like anxiety

Agitation

- 0 Rests normally, no signs of agitation
- 1 Slight restlessness, cannot sit or lie still. Awake when others asleep
- 2 Moves constantly, looks tense. Wants to get out of bed but obeys requests to stay in bed
- 3 Constantly restless. Gets out of bed for no obvious reason
- 4 Maximally restless, aggressive. Ignores requests to stay in bed

Axilla temperature

- 0 Temperature of 37.0°C
- 1 Temperature of 37.1°C
- 2 Temperature of 37.6–38°C
- 3 Temperature of 38.1–38.5°C
- 4 Temperature above 38.5°C

Hallucinations

- 0 No evidence of hallucinations
- 1 Distortions of real objects, aware that these are not real if this is pointed out
- 2 Appearance of totally new objects or perceptions, aware that these are not real if this is pointed out
- 3 Believes that hallucinations are real but still oriented in place and person
- 4 Believes him/herself to be in a totally nonexistent environment, preoccupied and cannot be diverted or reassured

Orientation

- 0 The patient is fully oriented in time, place and person
- 1 The patient is fully oriented in person but is not sure where he/she is or what time it is
- 2 Oriented in person but disoriented in time and place
- 3 Doubtful personal orientation, disorientated in time and place; there may be short periods of lucidity
- 4 Disoriented in time, place and person; no meaningful contact can be obtained

Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines

 Queensland Government		(Affix identification label here)																						
<h2 style="margin: 0;">Alcohol Withdrawal Scale</h2> <h3 style="margin: 0;">AWS</h3>		URN: Family name: Given name(s): Address: Date of birth: Sex: <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> I																						
Last Alcohol Use - Date: / / Time: : AM / PM		Date																						
		Time																						
		Bal																						
Perspiration	0. Nil 1. Moist skin 2. Beads on face and body 3. Profuse, whole body wet																							
Tremor	0. No tremor 1. Tremor can be felt in fingers 2. Visible tremor but mild 3. Moderate tremor, arms out 4. Severe, arms not extended																							
Anxiety	0. Calm 1. Uneasy 2. Apprehensive 3. Fearful, slow to calm 4. Unable to calm / panic																							
Agitation	0. Able to rest 1. Unsettled, fidgety 2. Restless, tossing, turning 3. Excitable, pacing 4. Constant movement																							
Temperature	0. < 37.0c 1. 37.1c - 37.5c 2. 37.6c - 38.0c 3. 38.1c - 38.5c 4. > 38.5c																							
Hallucinations Specify if: V = Visual T = Tactile A = Auditory	0. Lucid 1. Infrequent, aware 2. Brief, persuadable 3. Frequent, distressed 4. No meaningful reality																							
Orientation	0. Fully oriented 1. Unsure of time 2. Unsure time, place 3. Unsure time, place, person 4. Disorientated																							
Total																								
Scale (mm)	Blood pressure																							
• 1	Pulse																							
● 2	Temperature																							
● 3	Respirations																							
● 4	Conscious level	1. Alert, obeys, oriented																						
● 5		2. Confused, response to speech																						
● 6	Pupils	3. Stuporous, response to pain																						
● 7		4. Semi-comatose																						
● 8	Medication given?	5. Comatose																						
	Nurse initials	<table border="1" style="font-size: small;"> <tr> <td rowspan="2" style="text-align: center;">+</td> <td>Reactive</td> <td rowspan="2" style="text-align: center;">Left</td> <td>Size</td> </tr> <tr> <td>No Reaction</td> <td>Reaction</td> </tr> <tr> <td rowspan="2" style="text-align: center;">B</td> <td>Brisk</td> <td rowspan="2" style="text-align: center;">Right</td> <td>Size</td> </tr> <tr> <td>Sluggish</td> <td>Reaction</td> </tr> </table>	+	Reactive	Left	Size	No Reaction	Reaction	B	Brisk	Right	Size	Sluggish	Reaction										
+		Reactive		Left		Size																		
	No Reaction	Reaction																						
B	Brisk	Right	Size																					
	Sluggish		Reaction																					

Source: NSW Health Department 1999, New South Wales Detoxification Clinical Practice Guidelines, NSW Health Department, ISBN 0 7347 3034.



Queensland Government

Amphetamine Withdrawal Scale

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth:

Sex: M F I

Facility:

Last Amphetamine Use - Date: / / Time: : AM / PM

Ratings: 0 None	1 Mild	2 Moderate	3 Severe	Date															
				Time															
				Bal															
Do you feel tired?																			
Are you sleeping a lot?																			
Is your mood low?																			
Are you easily annoyed?																			
Do you feel anxious?																			
Do you have aches/pains?																			
Is your appetite poor?																			
Are you hearing and/or seeing unusual/disturbing things?																			
Do you feel suspicious/mistrustful of others?																			
Is your concentration on tasks poor?																			
TOTAL																			
Blood pressure																			
Pulse																			
Temperature																			
Respirations																			
Conscious Level		1. Alert, obeys, oriented. 2. Confused, response to speech. 3. Stuporous, response to pain. 4. Semi-comatose. 5. Comatose.																	
Pupils	Left	Size																	
		Reaction																	
	Right	Size																	
		Reaction																	
+ Reactive B Brisk		- No Reaction S Sluggish		Scale (mm)	1	2	3	4	5	6	7	8							
Medication given?																			
Nurse initials																			

AMPHETAMINE WITHDRAWAL SCALE

V1.00 - 06/2012





Queensland Government

Objective Opioid Withdrawal Assessment Scale (OOWS)

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth:

Sex: M F I

Facility:

Last Opiate Use - Date: / / Time: : AM / PM

Observe the patient during a **5 minute observation period** then indicate a score for each of the opioid withdrawal signs listed below. Add the scores for each item to obtain the total score.

		Date																
		Time																
		Bal																
1.	Yawning	0. no yawns	1. > 1 yawn															
2.	Rhinorrhoea	0. < 3 sniffs	1. > 3 sniffs															
3.	Piloerection (observe arm)	0. absent	1. present															
4.	Perspiration	0. absent	1. present															
5.	Lacrimation	0. absent	1. present															
6.	Tremor (hands)	0. absent	1. present															
7.	Mydriasis	0. absent	1. ≥ 3 mm															
8.	Hot and Cold Flushes	0. absent	1. shivering / huddling for warmth															
9.	Restlessness	0. absent	1. frequent changes of position															
10.	Vomiting	0. absent	1. present															
11.	Muscle Twitches	0. absent	1. present															
12.	Abdominal Cramps	0. absent	1. holding stomach															
13.	Anxiety	0. absent	1. mild-severe															
Total																		

Scale (mm)	• 1	Blood pressure supine																	
		Blood pressure erect																	
	● 2	Pulse																	
		Temperature																	
	● 3	Respirations																	
		● 4	Perspiration	0 Nil															
	1 Moist Skin																		
	● 5	● 6	Pupils	+ Reactive - No Reaction B Brisk S Sluggish	Left	Size													
Reaction																			
● 7	● 8	Pupils	+ Reactive - No Reaction B Brisk S Sluggish	Right	Size														
					Reaction														
8 Medication given?																			
Nurse initials																			

OBJECTIVE OPIOID WITHDRAWAL ASSESSMENT SCALE (OOWS)

V1.00 - 06/2012



Source: Handelsman, L., Cochrane, K. J., Aronson, M. J. Ness, R., Rubinstein K.J., Kanof, P.D. (1987) Two New Rating Scales for Opiate Withdrawal. American Journal of Alcohol Abuse, 13, 293-308.



Benzodiazepine Withdrawal Scale (CIWA-B)

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth:

Sex: M F I

Facility:

Last Benzodiazepine Use: Date: / / Time: : AM / PM

Amount Last 24 Hours: Name: Dose:

Ratings:						Date												
	0	1	2	3	4	Time												
	None	Mild	Moderate	Severe	Very Severe	Bal												

Do you feel irritable?																		
Do you feel fatigued (tired)?																		
Do you feel tense?																		
Are you having difficulties concentrating?																		
Do you have loss of appetite?																		
Is there numbness in your face and/or hands?																		
Is your heart racing?																		
Does your head feel full/achy?																		
Are your muscles aching/cramping/stiff?																		
Do you feel anxious?																		
Do you feel upset?																		
Do you feel that your sleep was not restful last night?																		
Do you feel weak?																		
Do you feel you did not have enough sleep last night?																		
Are your eyes blurred / light sensitive?																		
Are you fearful?																		
Are you worrying about possible misfortunes?																		

NURSE TO RECORD THIS SECTION (see reverse for physical observations)

Perspiration	0. Nil 1. Moist skin 2. Beads on face and body 3. Profuse, whole body wet																	
Tremor	0. No tremor 1. Tremor can be felt in fingers 2. Visible tremor but mild 3. Moderate tremor, arms out 4. Severe, arms not extended																	
Restlessness and agitation	0. None, normal activity 1. Uneasy 2. Restless 3. Excitable-Purposeless action 4. Pacing, unable to sit still																	
Total score																		

BENZODIAZEPINE WITHDRAWAL SCALE (CIWA-B)

V1.00 - 06/2012



SW276

Queensland Alcohol and Drug Withdrawal Clinical Practice Guidelines

 Queensland Government Benzodiazepine Withdrawal Scale (CIWA-B)		(Affix identification label here)									
		URN: Family name: Given name(s): Address: Date of birth: Sex: <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> I									
		Date									
		Time									
Blood pressure											
Pulse											
Temperature											
Respirations											
Conscious level		1. Alert, obeys, oriented 2. Confused, response to speech 3. Stuporous, response to pain 4. Semi-comatose 5. Comatose									
Pupils	Left	Size									
		Reaction									
	Right	Size									
		Reaction									
+ Reactive - No Reaction B Brisk S Sluggish		Scale (mm)		1	2	3	4	5	6	7	8
				•	•	•	•	•	•	•	•
Medication given?											
Nurse initials											

Source: Busto UE, Sykora K, Sellers EM. 1989 A clinical scale to assess BZD withdrawal. J Clin Psychopharmacology 9 (6) 412-416

Guide to the use of the Subjective Opioid Withdrawal Scale (SOWS)

Administration of SOWS rating scale

The SOWS scale is the patient's assessment of their withdrawal symptoms – that is, a patient self-evaluation. Patients are asked if they have suffered the symptoms in the past 24 hours and to rate each symptom according to severity.

Each item is rated on a 4 point scale:

0 = none 1 = mild 2 = moderate 3 = severe

As this is a patient self-evaluation, the nurse's role is to assist the patient to complete the task, not do it for them nor interpret their symptomatology.

For most patients, the 10 items in SOWS will take less than 1 minute to complete.

SOWS item	Symptom domain
1. Feeling sick (nauseated)	Nausea, vomiting
2. Stomach cramps	Abdominal cramps, diarrhoea
3. Muscle spasms/twitching	Leg cramps, restless legs
4. Feeling of coldness	Hot and cold flushes, cold peripheries
5. Heart pounding	Jumping of heart in chest
6. Muscular tension	Stiff neck, shoulders (tightness)
7. Aches and pains	Headache, painful joints, general aches, backache
8. Yawning	Not related to lethargy
9. Runny eyes/nose	Runny nose, redness/itching of eyes and nose, vision obscured from runny eyes
10. Insomnia, problems sleeping	Nightmares, early morning wakening (complete in relation to previous night), difficulty falling asleep, fatigue

The symptom domains are included as a guide only and to aid clarification for the patient. If the patient feels they know how to complete the SOWS, then no input from the nurse may be required.

A suggested interpretation of the SOWS scores

Severity	SOWS scores
Mild	1–10
Moderate	11–20
Severe	21–30



Queensland Government

Subjective OPIOID Withdrawal Scale (SOWS)

(Affix identification label here)

URN:

Family name:

Given name(s):

Address:

Date of birth:

Sex: M F I

Facility:

Last Opiate Use - Date: / / Time: : AM / PM

Ratings: Record score for how you feel *now*

0	1	2	3
nil	mild	moderate	severe

Date

Time

Bal

Do you have nausea or are you vomiting?

Do you have stomach cramps?

Do you have leg cramps or restless legs?

Are you having hot or cold flushes or shivering?

Is your heart pounding?

Do you have muscle tension?

Do you have aches and pains?

Are you yawning often?

Do you have a runny nose and/or weepy eyes?

Did you have sleeping problems last night?

Total

Blood pressure supine

Blood pressure erect

Scale (mm)

• 1 Pulse

● 2 Temperature

● 3 Respirations

● 4	Perspiration	0 Nil
		1 Moist Skin
		2 Beads on face & body
		3 Profuse, whole body wet

● 5	Pupils	+ Reactive - No Reaction	Left	Size	
			Right	Reaction	
		● 6	B Brisk S Sluggish	Left	Size
				Right	Reaction

● 7

● 8

Medication given?

Nurse initials

SUBJECTIVE OPIOID WITHDRAWAL SCALE

V1.00 - 06/2012



Source: Handelsman, L., Cochrane, K. J., Aronson, M. J., Ness, R., Rubinstein K.J., Kanof, P.D. (1987) Two New Rating Scales for Opiate Withdrawal. American Journal of Alcohol Abuse, 13, 293-308

 <p>Queensland Government</p> <p style="text-align: center;">Cannabis Withdrawal Scale (CWS)</p> <p>Facility:</p>	<p style="text-align: right;">(Affix identification label here)</p> <p>URN:</p> <p>Family name:</p> <p>Given name(s):</p> <p>Address:</p> <p>Date of birth: _____ Sex: <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> I</p>
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Instructions: This version of the CWS asks about symptoms experienced over the last 24 hours, and can be administered by an interviewer OR by self report.

The following statements describe how you have felt over the last 24 hours. Please circle the number that most closely represents your personal experiences for each statement. For each statement, please rate its negative impact on normal daily activities on the same scale (0 = Not at all to 10 = Extremely), writing the number in the right hand column.

		Not at all	Moderately	Extremely		Negative Impact on daily activity (0–10)						
1 The only thing I could think about was smoking some cannabis	0	1	2	3	4	5	6	7	8	9	10	
2 I had a headache	0	1	2	3	4	5	6	7	8	9	10	
3 I had no appetite	0	1	2	3	4	5	6	7	8	9	10	
4 I felt nauseous (like vomiting)	0	1	2	3	4	5	6	7	8	9	10	
5 I felt nervous	0	1	2	3	4	5	6	7	8	9	10	
6 I had some angry outbursts	0	1	2	3	4	5	6	7	8	9	10	
7 I had mood swings	0	1	2	3	4	5	6	7	8	9	10	
8 I felt depressed	0	1	2	3	4	5	6	7	8	9	10	
9 I was easily irritated	0	1	2	3	4	5	6	7	8	9	10	
10 I had been imagining being stoned	0	1	2	3	4	5	6	7	8	9	10	
11 I felt restless	0	1	2	3	4	5	6	7	8	9	10	
12 I woke up early	0	1	2	3	4	5	6	7	8	9	10	
13 I had a stomach ache	0	1	2	3	4	5	6	7	8	9	10	
14 I had nightmares and/or strange dreams	0	1	2	3	4	5	6	7	8	9	10	
15 Life seemed like an uphill struggle	0	1	2	3	4	5	6	7	8	9	10	
16 I woke up sweating at night	0	1	2	3	4	5	6	7	8	9	10	
17 I had trouble getting to sleep at night	0	1	2	3	4	5	6	7	8	9	10	
18 I felt physically tense	0	1	2	3	4	5	6	7	8	9	10	
19 I had hot flushes	0	1	2	3	4	5	6	7	8	9	10	

CANNABIS WITHDRAWAL SCALE (CWS)

Score by summing each items value to a maximum withdrawal score of 190 (you can derive two scores from the scale: one for withdrawal intensity and one for the negative impact of withdrawal – each separate score has a theoretical maximum of 190).

Source: "The Cannabis Withdrawal Scale Development: Patterns and Predictors of Cannabis Withdrawal and Distress" David J Allsop, Melissa M Norberg, Jan Copeland, Shanlin Fu, Alan J Budney



Summary: Amphetamines

This summary sheet is for guidance only. If the patient is not improving on this regime, then seek assistance from the local alcohol and drug service, an addiction medicine specialist or the HADS unit.

Signs of intoxication	Withdrawal timeframe	Crash phase	Withdrawal phase	Extinction phase
Excitement Anxiety Agitation Euphoria Increased body temperature Increased blood pressure Dry mouth Paranoia Psychotic features Headaches Pale skin Dizziness Rapid or irregular heartbeat Panic attacks Confusion (feeling 'scattered')	Crash: starts 12–24 hours after last dose and lasts 24–48 hours Withdrawal: starts 2–4 days after last use, peaks in severity over 7–10 days, and then subsides over 2–4 weeks Extinction lasts weeks to months	Exhaustion Fatigue Sleep disturbances (typically increased sleep, although insomnia or restless sleep may occur) Mood disturbances: typically flat mood or dysphoria Anxiety or agitation Low cravings Generalised aches and pains	Strong cravings Fluctuating mood and energy levels, alternating between: irritability, restlessness, anxiety and agitation Fatigue, anhedonia Disturbed sleep, including vivid dreams, insomnia Aches and pains, headaches Muscle tension Increased appetite Poor concentration and attention Disturbances of thought (e.g. paranoid ideation, strange beliefs) and perception (misperceptions, hallucinations) can re-emerge during withdrawal phase after having been masked during crash	Gradual resumption of normal mood with episodic fluctuations in mood and energy levels, alternating between: <ul style="list-style-type: none">• irritability• restlessness• anxiety• agitation• fatigue• lacking energy• anhedonia. Episodic cravings Disturbed sleep

Assessment/management tools (once diagnosis has been confirmed)

Good clinical assessment

Treatment models

General	Withdrawal treatment	Outpatient	Inpatient
Most amphetamine withdrawal can be managed in the community Generally, daily review is required to monitor the progress of the patient	Supportive care: <ul style="list-style-type: none">• hydration• calm environment• explanation of withdrawal symptoms and management	Multivitamins Dietary sources of tryptophan Low dose diazepam for agitation and poor sleep for up to 7 days In case of paranoid or psychotic symptoms, olanzapine should be considered, titrated against symptoms (e.g. 2.5 mg daily)	Multivitamins and nutritional supplements (e.g. Sustagen) Diazepam for agitation and poor sleep for up to 7 days In case of paranoid or psychotic symptoms, olanzapine should be considered, titrated against symptoms

Post-withdrawal treatment options

Ongoing counselling

Residential rehabilitation/therapeutic communities

Support groups e.g. Narcotics Anonymous

Summary: Alcohol

Appendix I

This summary sheet is for guidance only. If the patient is not improving on this regime, then seek assistance from the local alcohol and drug service, an addiction medicine specialist or the HADS unit.

Signs of intoxication	Signs of withdrawal	Mild to moderate
Poor motor coordination, slurred speech, disinhibition, low blood pressure, smells of alcohol, poor concentration, mood instability Blood alcohol level (BAL) by breath analysis Monitor regularly: pulse and BP, respiration, level of consciousness, signs of withdrawal	Onset generally 6–24 hours after last drink (BAL may not be zero) and lasts up to 2–3 days but can be as long as 10 days	Agitation, anxiety, disturbed sleep, nausea, restlessness, sweats, tachycardia, hypertension, tremor, raised temperature
		Severe Worsening of moderate symptoms plus delirium tremens, vomiting, extreme agitation, confusion, paranoia, hallucinations, seizures (can occur usually within the first 48 hours of ceasing drinking), death Wernicke's encephalopathy: acute thiamine deficiency associated with prolonged alcohol use. Symptoms include confusion plus ataxia, nystagmus

Assessment/management tools (once diagnosis has been made)

Alcohol Withdrawal Scale (AWS)	CIWA-AR
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Treatment models

Supportive care	Ambulatory withdrawal treatment	Inpatient withdrawal treatment	
May be sufficient in mild withdrawal Includes: Adequate hydration Anti-emetics (Maxolon 10 mg QID, TDS) Headache – paracetamol Diarrhoea – loperamide/kaomagma	Suitable in mild to moderate withdrawal No complicating medical factors/history of seizures Diazepam is the drug of choice Example of regime: Day 1: Diazepam 10 mg QID Day 2–3: Diazepam 5–10 mg TDS Day 4: Diazepam 5 mg BD Day 5–7: Diazepam 5 mg nocte Diazepam can be stopped on day 5 for ambulatory withdrawal (reduces the risk of ongoing use) Use long-acting benzodiazepines with caution if liver disease is present. If severe liver disease, use oxazepam instead as it is renally excreted with no active metabolites	Diazepam loading regimen Initiate with 20 mg diazepam on development of withdrawal symptoms Repeat doses of 10–20 mg every 90 minutes over 4–6 hours or until light sedation occurs Tapering doses over next week as per ambulatory regime	Symptom – triggered sedation Moderate withdrawal (CIWA-AR 10–20, AWS 5–14) 10–20 mg diazepam initially 10–20 mg every 2 hours until good symptom control (maximum 80 mg) Tapering doses over next week as per ambulatory regime, titrated against withdrawal symptoms Severe withdrawal, including delirium tremens, may require IV sedation. Either use diazepam 20 mg hourly up to 80 mg if able to take diazepam orally, or IV midazolam infusion (5 mg bolus, then infusion at 2 mg/hr, titrating against response) Specialist input is required for these patients

Summary: Alcohol

Wernicke's encephalopathy	
All patients	
Suspected Wernicke's encephalopathy	Thiamine 100 mg TDS IM/IV for 3 days then 100 mg TDS orally until patient has been sober for at least a month
Probable Wernicke's encephalopathy	Minimum thiamine 100 mg TDS IM/IV but consider more, or use of Pabrinex® for 3–5 days then review. Consider high dose B and C vitamins (e.g. Cenovis Mega B Complex®)
Prophylaxis (for all other patients)	Thiamine 100 mg IV/IM daily for 3 days plus 100 mg TDS orally until sober for 1 month
Post-withdrawal treatment options	
Anti-craving medications	Naltrexone Acamprosate Second-line agents including disulfiram and baclofen
Relapse prevention	Groups Ongoing counselling Alcoholics Anonymous Residential rehabilitation

Summary: Benzodiazepines

This summary sheet is for guidance only. If the patient is not improving on this regime, then seek assistance from the local alcohol and drug service, an addiction medicine specialist or the HADS unit.

Signs of intoxication	Signs of withdrawal	Common	Uncommon
Poor motor coordination Slurred speech Disinhibition Low blood pressure Poor concentration Mood instability Sedation Monitor regularly: • pulse and BP • respiration • level of consciousness • signs of withdrawal	Onset generally 1–10 days after last dose, lasts up to 3–6 weeks (depending on the half-life of the benzodiazepine)	Anxiety Insomnia Restlessness Agitation Irritability Poor concentration Poor memory Depression Muscle tension Aches and twitching Nightmares Agoraphobia Feelings of unreality Depersonalisation Panic attacks Nausea Dry retching Decreased appetite Weight loss Sweating Lethargy Increased sensory perception Aches and pains Headaches Palpitations Tremor Blurred vision Increased temperature Ataxia Menstrual changes	Delusions Paranoia Hallucinations Seizures Persistent tinnitus Confusion

Assessment/management tools (once diagnosis has been confirmed)	
CIWA-B can be used to monitor and assist in managing withdrawal	Good clinical assessment is required

Summary: Benzodiazepines

Treatment models			
General	Ambulatory withdrawal treatment	Inpatient withdrawal treatment	
<p>Do not prescribe to patients with whom you are not familiar</p> <p>Do not prescribe benzodiazepines to polydrug users</p> <p>Refer patients on an opioid treatment program back to their prescribers</p> <p>Use the prescription shopping hotline for information</p>	<p>Preferable for most benzodiazepine withdrawal if:</p> <ul style="list-style-type: none"> • there are no complicating medical factors or history of seizures • the dose of benzodiazepine is <50 mg diazepam equivalent <p>Transfer patient to a long-acting benzodiazepine – diazepam is the drug of choice</p> <p>Rate of reduction should be managed between the patient and the prescriber – reduce by 5 mg per week until 40 mg, then 2.5 mg per week until completed. Reduction rate can be slower if preferred by the patient</p> <p>Use long-acting benzodiazepines with caution in liver disease. If severe liver disease, use oxazepam instead as it is renally excreted with no active metabolites</p>	<p>Stabilise high-dose users (>80 mg diazepam equivalent) on a reduction regimen as an inpatient, then withdrawal can be completed slowly in the community. Stabilise on diazepam at a dose 40 per cent of their regular intake or 80 mg/day, whichever is the lower</p> <p>Dose of benzodiazepine is <100 mg diazepam equivalent, then reduce by approximately 20 per cent previous daily dose until 15 mg, then by 2.5 mg per day, making the nocte dose the largest.</p> <p>Elderly people and patients with other illnesses (especially metabolic disorders): Delayed onset confusion can be seen following cessation of long-term low dose benzodiazepines in the elderly. Best managed by reintroduction of low doses with slow taper off over 1–2 weeks. Often this is necessary but not sufficient to relieve confusion which often has multi-factorial aetiology</p>	<p>Patients who use benzodiazepines in combination with alcohol (there is cross tolerance):</p> <ul style="list-style-type: none"> • where the benzodiazepine dose is minimal or irregular, manage the patients as if drinking slightly more than estimated alcohol consumption • if benzodiazepine dose is regular and above 30 mg/day (equivalent) then treat the alcohol as extra benzodiazepines and use higher doses in the first few days of withdrawal before rapidly reducing down to the usual benzodiazepine regime

Post-withdrawal treatment options
Ongoing counselling
Support groups, e.g. benzo.org.uk
Medicare's prescription shopping program reviews

Summary: Opioids

This summary sheet is for guidance only. If the patient is not improving on this regime, then seek assistance from the local alcohol and drug service, an addiction medicine specialist or the HADS unit.

Signs of intoxication	Signs of withdrawal	Signs	Symptoms
Pinpoint pupils Sedation – ‘nodding off’ Decreased BP Decreased pulse Euphoria (sense of wellbeing) Itching Scratching Slurred speech Opioid intoxication/ overdose can lead to slow and noisy respiration, patient is unrousable Coma Death	Heroin: commence 6–24 hours after the last dose, reach a peak at 24–48 hours, and resolve after 5–10 days Long-acting opioid (methadone or controlled release pharmaceutical opioids): commences 24–48 hours after the last dose. Peak severity less than for heroin withdrawal, but withdrawal may be more prolonged, lasting 3–6 weeks Buprenorphine: withdrawal is generally milder than withdrawal from methadone or heroin. Commences within 3–5 days of the last dose and can last for several weeks	Restlessness Yawning Sweating Rhinorrhoea Dilated pupils Piloerection Muscle twitching – particularly restless legs while lying down Vomiting Diarrhoea	Anorexia and nausea Abdominal pain Hot and cold flushes Bone, joint and muscle pain Insomnia and disturbed sleep Muscle cramps Intense craving for opioids

Assessment/management tools (once diagnosis has been confirmed)

Subjective Opioid Withdrawal Scale (SOWS)	Objective Opioid Withdrawal Scale (OOWS)
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Summary: Opioids

Treatment models		
General	Ambulatory withdrawal treatment	Inpatient withdrawal treatment
<p>Most opioid withdrawal can be undertaken in the community</p> <p>Generally, daily review is required to monitor the progress of the patient</p> <p>Symptomatic medication as follows may assist, however, use of buprenorphine in withdrawal management does not generally require any adjuvant medication:</p> <ul style="list-style-type: none"> • Muscle aches and pains: paracetamol 1000 mg, 4–6 hourly ibuprofen 400 mg TDS • Muscle cramps: magnesium aspartate 500 mg 8-hourly • Nausea: metoclopramide 10 mg TDS prochlorperazine 5 mg 4–6 hourly • Abdominal cramps: hyoscine 20 mg 6-hourly • Diarrhoea: kaomagna/loperamide 2 mg PRN • Insomnia: temazepam 10–20 mg nocte for 3–5 nights cyproheptadine 4 mg nocte • Agitation/anxiety: diazepam 5 mg QID – tapered as quickly as possible • Sweating: clonidine 75 µg 6-hourly – monitor BP 	<p>Buprenorphine is the drug recommended for outpatient withdrawal management</p> <p>Recommended regime (however a degree of flexibility is required):</p> <p>Day 1: 6 mg Day 2: 8 mg Day 3: 10 mg Day 4: 8 mg Day 5: 4 mg</p> <p>Reduce to 2 mg for day 6 and 7 if needed</p> <p>Remember to withhold the first dose until withdrawal symptoms emerge. In the case of long-acting oral opioid use, this can take several days</p>	<p>As for ambulatory treatment with the addition of:</p> <ul style="list-style-type: none"> • where buprenorphine cannot be used, a clonidine regime can be used with symptomatic medications. <ul style="list-style-type: none"> – Example of clonidine regime: <p>Day 1: 75–150 µg QID</p> <p>Day 2: 75–300 µg QID</p> <p>Day 3 (and until peak of withdrawals is passed): as Day 2 then reduce dose to 75–150 µg QID for 2 days</p> <p>Then: 75 µg QID for 1 day</p> <p>Then: 75 µg BD for 1 day</p> • doses in microgram • omit or give lower dose if pulse <60 bpm or BP <90/50

Post-withdrawal treatment options
Ongoing counselling
Residential rehabilitation/therapeutic communities
Support groups e.g. Narcotics Anonymous

Summary: Cannabis

This summary sheet is for guidance only. If the patient is not improving on this regime, then seek assistance from the local alcohol and drug service, an addiction medicine specialist or the HADS unit.

Signs of intoxication	Withdrawal timeframe	Common symptoms	Less common symptoms
Euphoria 'Mellow feeling' Increased appetite Increased pulse Confusion Restlessness Excitement Hallucinations Anxious or panicky Disconnected from reality Paranoia Violent Suicidal behaviour	50–70 per cent of dependent THC users will experience 4 or more withdrawal symptoms Commence on day 1 Peak at day 2–3 Symptoms last approximately 2–3 weeks Occasional late development of anger and aggression up to 2 weeks after ceasing use	Anger or aggression Decreased appetite or weight loss Irritability Nervousness/anxiety Restlessness Sleep difficulties, including strange dreams Cravings Sweating	Chills Depressed mood Stomach pain Shakiness Paranoid ideation Factors affecting severity: <ul style="list-style-type: none"> • psychiatric comorbidity • dose: amount and potency of preparation consumed • history of aggression or violence • duration of current use • number of years using • rate of withdrawal • comorbid substance use • past or current substance use history

Assessment/management tools (once diagnosis has been confirmed)

Good clinical assessment
 Cannabis Withdrawal Scale

Treatment models

General	Withdrawal treatment	Outpatient	Inpatient
Most cannabis withdrawal can be managed in the community Regular patient contact Cessation of use can be managed either abruptly or with a gradual reduction in use (aim to decrease to zero over about 4 weeks)	Supportive care: <ul style="list-style-type: none"> • hydration • calm environment • explanation of withdrawal symptoms and management • decreased intake of caffeinated drinks 	Management of symptoms: <ul style="list-style-type: none"> • Sleep problems: benzodiazepines, promethazine • Restlessness, anxiety, irritability: diazepam 5 mg BD for 3–7 days • Stomach pains: hyoscine, atrobel • Physical pain, headaches: paracetamol, non-steroidal anti-inflammatory agents • Nausea: promethazine, metoclopramide • Distressing paranoid ideation not settling with BZD: olanzapine 2.5–10 mg daily while symptoms persist 	Generally not required. Discuss with HADs if inpatient withdrawal management is thought to be necessary Unplanned withdrawal while an inpatient should be managed in the same way as outpatient withdrawal

Post-withdrawal treatment options

Ongoing counselling

Appendices

Appendix J

Fagerström test for nicotine dependence

Question	Answer	Score
1. How soon after waking up do you smoke your first cigarette?	Within 5 minutes	3
	6–30 minutes	2
	31–60 minutes	1
2. Do you find it difficult to abstain from smoking in places where it is forbidden?	Yes	1
	No	0
3. Which cigarette would you hate to give up?	The first one in the morning	1
	Any other	0
4. How many cigarettes a day do you smoke?	10 or less	0
	11–20	1
	21–30	2
	31 or more	3
5. Do you smoke more frequently in the morning than in the rest of the day?	Yes	1
	No	0
6. Do you smoke even though you are sick in bed for most of the day?	Yes	1
	No	0
TOTAL		
Score		
0–2 very low dependence 6–7 high dependence		
3–4 low dependence 8+ very high dependence		
5 medium dependence		

Source: Fagerström KO, Heatherton TF, Kozlowski LT, (1990). Nicotine Addiction and its Assessment. *Ear, Nose and Throat Journal*. 89 (11), pp.763-765.

Appendices

Appendix K

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