Alcohol, Tobacco & Other Drugs
Guidelines for Nurses and Midwives:

Clinical Guidelines
Version 2

South Australian Alcohol and Other Drug Nursing and Midwifery Statewide Action Group

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Endorsed by Drug & Alcohol Nurses of Australasia Inc.

Flinders University Adelaide Australia
This alcohol, tobacco and other drugs resource package is comprised of:

*Alcohol, tobacco & other drugs guidelines for nurses & midwives: a framework for policy and standards for nurses and midwives*
*Alcohol, tobacco and other drugs guidelines for nurses & midwives: clinical guidelines*
*Alcohol, tobacco and other drugs guidelines for nurses & midwives: quick clinical reference*

To access online copies of the above material, go to the Drug & Alcohol Services Council (DASC) website: [http://www.dasc.sa.gov.au](http://www.dasc.sa.gov.au)

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# Contents

Acknowledgements ........................................................................................................... vii
Special thanks .................................................................................................................. viii
Introduction ......................................................................................................................... 9
Statement of purpose ......................................................................................................... 9
Companion resources ....................................................................................................... 9
Principles for practice ..................................................................................................... 9
Glossary ............................................................................................................................... 10

Section 1 Basis for practice .............................................................................................. 15
  1.1 ATOD use in context ..................................................................................................... 17
      Poly drug use ............................................................................................................... 17
      Patterns of ATOD use ................................................................................................. 18
      Myths of ATOD use .................................................................................................... 18
  1.2 Harm minimisation .................................................................................................... 20
      Harm minimisation .................................................................................................... 20
  1.3 Non-judgemental care .............................................................................................. 22
      Barriers to people seeking help ............................................................................. 22
      Engaging in ATOD intervention and treatment ..................................................... 22
  1.4 Understanding ATOD problems .............................................................................. 23
      Theories of ATOD use ............................................................................................... 23
      Integrating the models .............................................................................................. 27

Section 2 Client care ......................................................................................................... 29
  2.1 Communication and cultural issues ........................................................................ 31
      Introduction ................................................................................................................ 31
      General principles of communication ...................................................................... 31
      Improving cross-cultural communication .............................................................. 31
      Working with Aboriginal peoples and Torres Strait Islanders .............................. 33
      Responding effectively to diversity .......................................................................... 37
      Working with young people and children ............................................................... 38
  2.2 Assessment .................................................................................................................. 39
      Introduction ................................................................................................................ 39
      Rationale for assessment ........................................................................................... 39
      Using a client-centred approach .............................................................................. 40
      Issues for assessment ................................................................................................. 41
      Nursing guidelines—general assessment .................................................................. 44
      Planning care ............................................................................................................... 49
      Knowing when to refer on ....................................................................................... 50
  2.3 Early and brief intervention ...................................................................................... 52
      Introduction ................................................................................................................ 52
      Rationale for early intervention ................................................................................ 52
      Rationale for brief intervention ................................................................................ 52
      General principles of early and brief intervention ................................................. 53
      Guidelines for brief intervention ............................................................................ 53
      Harm reduction strategies ......................................................................................... 58
      Relapse prevention strategies ................................................................................... 59
  2.4 Managing intoxication .............................................................................................. 60
      Introduction ................................................................................................................ 60
      Rationale for intoxication management .................................................................... 60
      General principles of intoxication management .................................................... 61
      Identification of hazardous drug use ........................................................................ 61
      Screening for alcohol and other drug use ................................................................ 65
      Managing intoxication .............................................................................................. 68
<table>
<thead>
<tr>
<th>Section</th>
<th>Drug-specific information</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Alcohol</td>
</tr>
<tr>
<td>3.2</td>
<td>Opioids (opiates)</td>
</tr>
<tr>
<td>3.3</td>
<td>Benzodiazepines</td>
</tr>
<tr>
<td>3.4</td>
<td>Psychostimulants</td>
</tr>
</tbody>
</table>
User groups ................................................................. 161
Forms of anabolic steroids ........................................ 162
Common terms relating to patterns of AAS use .......... 163
Therapeutic uses of AAS ............................................. 163
Effects of AAS use ..................................................... 163
Assessment and quantification .................................. 167
Nursing management of AAS use .............................. 167
Harm reduction information AAS use ...................... 167
Cessation of AAS use ............................................... 169
Maternal and neonatal care .................................... 170

3.12 Pharmacotherapies for dependence ..................... 171
Introduction ................................................................ 171
Opioid pharmacotherapies ....................................... 171
Alcohol pharmacotherapies ...................................... 175

Section 4 Appendices ............................................... 179
Appendix 1: Taking a Drinking History .................... 181
Appendix 1A: ATOD Assessment Form—Alcohol History 182
Appendix 1B: ATOD Assessment Form—Drug History 183
Appendix 2: Alcohol Use Disorders Identification Test (AUDIT) 184
Appendix 2A: Alcohol Brief Intervention .................. 186
Appendix 3: Glasgow Coma Scale Neurological Chart 188
Appendix 4: Alcohol Withdrawal Observation Chart (FMC) 189
Appendix 4A: Alcohol Withdrawal Observation Chart (DASC) 193
Appendix 4B: CIWA-Ar Alcohol Withdrawal Observation Chart 197
Appendix 5: Neonatal Abstinence Syndrome Scoring Chart 200
Appendix 6: Objective Opiate Withdrawal Assessment Scale (OOWS) 202
Appendix 6A: Subjective Opiate Withdrawal Assessment Scale (SOWS) 204
Appendix 7: Benzodiazepine Withdrawal Assessment Scale 205
Appendix 8: Amphetamine Withdrawal Assessment Scale 207
Appendix 9: Cannabis Withdrawal Assessment Scale 209

Section 5 Reference ............................................... 211
List of contact numbers in each state and territory ....... 212
Bibliography ............................................................ 215
List your own contact numbers ................................. 223
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Introduction

Statement of purpose
Alcohol, tobacco and other drug use (ATOD) is prevalent in our society. Health care professionals, including nurses and midwives, doctors and allied health professionals are often faced with the complexities of caring for individuals and families who are experiencing problems associated with the use of ATOD.

These Clinical guidelines aim to support and provide a benchmark for quality assessment and care by all nurses and midwives in their daily practice, whether in general hospitals, mental health facilities or community settings. Each clinician needs to use and interpret these guidelines within the context of their role and scope of practice, and update their knowledge by accessing new research and clinical guidelines as these emerge. Please note the list of useful information and links to key resources and websites included at the back of this publication.

Companion resources
These Clinical guidelines are part of an ATOD information resource package that also includes:

- Alcohol, tobacco & other drugs guidelines for nurses & midwives: a framework for policy and standards
- Alcohol, tobacco & other drugs guidelines for nurses & midwives: quick clinical reference

These resources can assist the clinician in their assessment and interventions at the ‘bedside’ and in other situations.

Online copies of the resources are available from the following website:
http://www.dasc.sa.gov.au

Principles for practice
The Clinical guidelines rest on the following principles:

- the focus of nursing and midwifery practice aims to give equal regard to the physical, psychosocial and cultural wellbeing of all people receiving care. All practice should therefore include a comprehensive ATOD assessment and offer suitable interventions and harm reduction strategies to all clients identified as being at risk of, or experiencing, problems associated with their ATOD use. These problems may include intoxication, regular excessive use, withdrawal and/or dependence, and related health and social issues.

- all episodes of care provide an important opportunity—a ‘critical moment’ for clients to be offered appropriate and understandable health information and education related to ATOD use, assessment and evidence-based interventions should a problem be identified.

- access to comprehensive health care is every individual’s right, and all health professionals need to ensure that their own attitudes, value judgements and personal experiences do not interfere with each person’s right to quality care.

- A client centred approach is needed in effectively caring for people with ATOD problems, and where appropriate this needs to include their families.

- There is a duty of care for people presenting with ATOD problems to any health service.
**Glossary**

This glossary is adapted from a number of sources, including:


**Abstinence**: Refraining from ATOD use at all times.

**Alcoholic hallucinosis**: A cluster of psychotic symptoms occurring during or following heavy alcohol use not due to acute intoxication alone and not part of the withdrawal state. Characterised by hallucinations (typically auditory), perceptual distortions, paranoid or other delusions, psychomotor disturbances, and abnormal affect. Some degree of clouding of consciousness may be present.

**Alcohol-related brain injury (ARBI)**: A generic term that encompasses chronic impairment of memory and higher mental functions associated with the frontal lobe and limbic system.

**Amphetamine**: The group of psycho-stimulant drugs commonly known as *speed*, *uppers*, *whizz*, *goey*, *ice*, *crystal meth*. Sold as white or yellow powder, as tablets or liquid in capsules. Can be swallowed, inhaled (‘snorted’), smoked or injected. Often mixed with other substances. (see psychostimulants)

**Anabolic androgenic steroids (AAS)**: Synthetically modified derivatives of testosterone available in oral or parenteral form. Anabolic substances have the ability to synthesise body tissue and increase muscle mass and/or strength.

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

**ATOD**: Alcohol, tobacco and/or other drugs.

**Benzodiazepine**: One of the sedative-hypnotic group of drugs. May be referred to as *rowies*, *serries*, *benzos*. A safer alternatives to barbiturates, they have a general depressant effect on the central nervous system that increases with the dose, from sedation to hypnosis to stupor. Benzodiazepines have significant potential for dependence.

**Blood alcohol level (BAL)**: The concentration of alcohol (ethanol) present in blood. The legal blood alcohol limit for driving in South Australia is 0.05.

**Brief intervention**: A strategy in which short (between five minutes and two hours) structured therapy is offered on one occasion or spread over several visits. Aimed at helping a person to reduce or stop harmful ATOD use.

**Cannabis**: The generic name given to the psychoactive substance found in the marijuana plant *Cannabis sativa*, Delta 9-tetra-hydrocannabinol (THC). Street names include *dope*, *grass*, *pot*, *weed*, *shit*, *hash*, *bud*, *skunk*.

**Chroming**: A term used for inhalation of aerosol paints.

**Cocaine**: A powerful central nervous system stimulant derived from the cocoa plant, used non-medically to produce euphoria or wakefulness. Sold as white, translucent, crystalline flakes or powder. Street names include *coke*, *snow*, *C*.

**Controlled drinking**: Alcohol consumption that is moderated to avoid intoxication or hazardous use.
Craving: Very strong and urgent desire to use or resume use of the psychoactive drug of choice for the intoxicating effects.

Delirium tremens (DTs): A severe complication of alcohol withdrawal, typically manifesting as acute confusion accompanied by rapid pulse, clouding of consciousness, dehydration, delirium, elevated body temperature, sweating, extreme fear, hypertension, tachycardia, tremor and hallucinations. A medical emergency.

Dependence: A preoccupation with obtaining and using ATOD for its psychoactive effects; the need to keep taking ATOD to feel okay. Physical dependence referred to as neuro-adaptation: a person’s nervous system has adjusted to ATOD to function as ‘normal.’ Abstinence may be associated with the onset of withdrawal symptoms and discomfort of withdrawal will become a motivator for renewed ATOD use.

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

Detoxification: The process by which a person is assisted to withdraw from the ATOD on which they are dependent. Usually detoxification refers to medically supervised withdrawal that may or may not involve the administration of medication.

Disinhibition: A state of mind where the person feels free from internal constraints on their own behaviour—a loss of inhibitions.

Drug: Any chemical substance used for its effects on bodily processes.

Drug use
- **Experimental use**: Trying an ATOD to experience effect, whether or not to adopt person adopts an ongoing pattern of use.
- **High-risk use**: A pattern of harmful ATOD use that is likely to cause damage to health—either physical (e.g. pancreatitis or cirrhosis from heavy drinking or hepatitis from unsafe injecting) or mental (e.g. depressive episodes after heavy alcohol intake). Harmful use commonly has adverse social consequences.
- **Risky use**: A pattern of substance use that increases the risk of harm such as injuries caused by intoxication such as an occasional binge drinker may experience, or accidental overdose of a ‘party’ recreational drug user.
- **Social and recreational use**: Using a drug, either a licit or illicit substance, as a means of enhancing social interaction or enjoyment of some leisure activity. May or may not be harmful. Implies that the user is not dependent on the substance. Has the same connotations as ‘social drinking’.
- **Symptomatic use**: Using ATOD as a means of reducing unpleasant sensations or experiences or to avoid challenging situations or responsibilities.

Dual diagnosis: Where a person has an ATOD use problem(s) concurrent with a mental health problem(s). Also known as ‘comorbidity’.

Flashbacks: A perception disorder that can follow 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. Flashbacks can last from a few seconds to a few hours.

Foetal alcohol syndrome: Pattern of retarded growth and development, both mental and physical, caused in utero by excessive alcohol consumption.

Gamma hydroxybutyrate (GHB): GHB is a CNS depressant. See the Framework document for further information. Common street names include fantasy, grievous bodily harm (GBH), liquid E, liquid ecstasy and liquid X.
**Hallucinogen:** A mind-altering drug that alters perception, typically by inducing illusions or hallucinations. Hallucinogens can include naturally occurring compounds (e.g. magic mushrooms) and are usually taken orally. Some psychostimulants may also have hallucinogenic properties.

**Harm reduction:** The concept and strategy that accepts that ATOD use is common, and therefore there is a need to protect public and individual health by reducing risks and harms associated with continuing ATOD use. It works alongside efforts to encourage people not to take up ATOD use or to become abstinent from (cease) ATOD use. Harm reduction is the key policy and strategy that has enabled Australia to be so effective in preventing and minimising the spread of HIV through injecting drug use.

**Heroin:** A natural opiate from the opium poppy (as is codeine and morphine) with street names such as *smack*, *hammer*, H.

**HIV:** Human immunodeficiency virus. HIV is a retrovirus that causes acquired immunodeficiency syndrome (AIDS).

**Inhalant:** Any of a group of highly volatile compounds or mixtures of compounds that are inhaled for the intoxicating effects. Inhalants are also called **solvents** or **volatile substances**.

**Inhalant use:** Sniffing: inhaling fumes from glue, petrol, paint or other volatile substances (also called **solvents**) for the intoxicating, mind-altering effects.

**Intoxication:** The acute temporary condition resulting from use of a psychoactive drug which produces increasing levels of physical and behavioural changes that are dose-related.

**Ketamine:** A dissociative anaesthetic that has stimulant properties when taken in low doses.

**Lapse:** A brief resumption (e.g. one episode) of ATOD use or increased use where the goal is for controlled use.

**Maintenance therapy:** A form of pharmaco-therapeutic treatment for ATOD dependence by prescribing a substitute drug, e.g. methadone or buprenorphine for the treatment of heroin or other opioid dependence, nicotine patches for nicotine dependence.

**Marijuana:** See cannabis.

**Methadone:** A synthetic opioid drug used in maintenance pharmacotherapy for people dependent on opioids.

**Naloxone** (Narcan): An opioid receptor blocker that reverses the features of opioid intoxication. It is also prescribed for the treatment of opioid overdose.

**Narcotics Anonymous:** 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.

**Nicotine:** The major psychoactive substance in tobacco which has both stimulant and relaxing effects. Considerable neurological tolerance and dependence develop to nicotine.

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

**Overdose:** The use of any drug in such an amount that acute adverse physical or mental effects are produced; a dose that exceeds the individual’s tolerance. Overdose may produce transient or lasting effects, or death.

**Pharmacotherapy:** When a suitable prescribed and supervised psychoactive medical drug is used either short term to ameliorate withdrawal (e.g. buprenorphine for opiate withdrawal or nicotine patches for nicotine withdrawal), or longer-term maintenance and/or slow withdrawal (e.g. buprenorphine or methadone for opiate withdrawal) or Acamprosate of Naltrexone for the management of alcohol cravings after a withdrawal episode.

**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.
**Psychostimulant:** Any agent that activates, enhances, or increases neural activity of the central nervous system. Psychostimulants include the amphetamines, cocaine, caffeine and nicotine. This group also includes a range of designer drugs that are amphetamine derivatives. Some amphetamine derivatives may also have hallucinogenic properties.

**Psychoactive substance:** A substance that, when ingested inhaled or injected, affects mental processes, emotions and behaviour.

**Psychotropic:** In its most general sense, a term with the same meaning as ‘psychoactive’ (i.e. affecting the mind or mental processes).

**Rehabilitation:** The process by which a person experiencing problems related to their use of ATOD achieves an optimal state of health, psychological functioning, and wellbeing.

**Reinstatement:** Returning to ATOD use following a period of abstinence.

**Relapse:** A return to ATOD use after a brief or long period of abstinence.

**Sedative/hypnotic:** Any of a group of central nervous system depressants that can relieve anxiety and induce calmness and sleep.

**THC:** Tetrahydrocannabinol, the main psychoactive constituent in cannabis which has a depressant effect and may induce hallucinations.

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

**Tranquilliser:** General term for several classes of drugs employed to treat symptoms of various mental disorders. Have a quieting or dampening effect on psychomotor processes without interfering with consciousness and thinking (except at high doses). Differ from the sedatives/hypnotics, which are used to induce sleep. The term ‘tranquilliser’ is often used to refer to any drug that is used for treating anxiety disorders.

**Wernicke’s Encephalopathy:** An acute, life-threatening, neurological syndrome consisting of confusion, palsies of the ocular muscles, and of gaze (nystagmus), peripheral neuropathy and ataxia. Most common cause is Thiamine deficiency, often associated with long-term excessive use of alcohol. If not treated immediately with Thiamine, person is likely to progress to permanent amnesic syndrome (Wernicke-Korsakoff’s psychosis). Fatality can occur. **Note:** *Always ensure Thiamine is given before glucose* if there is any suspicion or risk of Wernicke’s.

**Withdrawal syndrome:** A cluster of defined symptoms that are neurologically or physiologically based, depends on the half-life of the drug used and time of last dose. Emerges when person stops or substantially reduces regular excessive drug use that has resulted in neuro-adaption of central nervous system. Generally withdrawal symptoms are the opposite of the acute effects of the drug e.g. hyperactivity of the CNS in alcohol or opioid withdrawal due to depressant nature of these drugs.
Section 1
Basis for practice
1.1 ATOD use in context

Alcohol, tobacco and other drugs (ATOD) problems affect individuals from all sections of society regardless of their race, cultural background, educational background, religion, gender or age. It is important to recognise that the use of ATOD is common and those who use ATOD may be affected because of ignorance and prejudice of other people. Assumptions about those who use ATOD are often founded on myths, stereotypes, and another’s particular experience or media images. People who use ATOD are not a homogeneous group and people’s reasons for commencing ATOD use and continuing to use are always varied and often complex. Examples of ATOD use show great range: a couple who enjoy champagne to celebrate and get ‘high’, a young woman who uses amphetamines to reduce her appetite, a smoker who uses tobacco to relieve stress, an elderly person who takes night sedation and/or alcohol to cope with feeling unsafe at night, a night worker who takes sedatives to help sleep during the day, a colleague who consumes excessive alcohol as a part of their work culture, or the injecting heroin user who asks for additional opioid drugs for unresolved pain following surgery. It is within the role and scope of practice of all nurses and midwives to minimise the harms associated with hazardous ATOD use resulting from intoxication, withdrawal and dependence.

Poly drug use

Over the last two decades people have increasingly used more than one drug on the same occasion or at different times. People presenting with a single type of drug use are becoming increasingly rare.

Medications, over the counter drugs, legal and illicit drugs all have the potential to interact. Drug interactions can occur in two major ways:

▪ pharmacokinetic—when changes take place in the absorption, distribution, metabolism or excretion of the drugs
▪ pharmacodynamic—changes in the effects of drugs.

Drug interactions can reduce or increase the effects of drugs and occur through four actions. These are:

▪ addition—the effects of two drugs are combined to produce a total effect which is greater than either drug alone
▪ potentiation—increased activity of the first drug is caused by the second drug which is itself inactive
▪ synergism—two active drugs have a greater combined effect than simple addition
▪ antagonism—the second drug cancels some or all of the effects of the first drug so that the overall effect is less than the effect of the first drug alone.

(Taylor, 1991, p. 12)

The dangers of poly drug use include increased risk of:

▪ overdose
▪ adverse drug reactions
▪ medical conditions not responding to prescribed medications
▪ intoxication and subsequent effect on performance being greater than anticipated for the amount of ATOD’s used
▪ increased or decreased duration of effects due to altered metabolism
false sense of competence, e.g. when caffeine and alcohol are used together there may be some counteraction of CNS depressant effects in the absence of any real capacity for task performance.

(Taylor, 1991, p. 13)

Poly drug use and its risk factors should be considered at all times when responding to people’s ATOD use.

Patterns of ATOD use

There is a spectrum of ATOD problems that are directly related to the pattern of ATOD consumption. This ranges from ‘once off’ intoxication, to binge drinking or drug use, to regular hazardous use to addiction. It is common in Australia for many young people to use alcohol and over-the-counter medicines, and to a lesser extent, tobacco and other drugs. Most start to use experimentally and may continue to use for recreational purposes—which may or may not be hazardous. People use ATOD to have fun, feel confident, socialise, enhance communication, enjoy family celebrations, enhance performance and many other reasons not necessarily perceived as risky to health or safety.

A minority of people who use ATOD on a regular excessive basis have an increased risk of psychological and physical problems (Thorley 1982). Most people can identify the positive effects related to their ATOD use, as well as any negative effects, and may ‘move in and out’ of different patterns of ATOD use depending on the context of their use, their motivation for use, what is happening in their lives, their environment and stage of maturation as an adult.

Clear distinctions between experimental, recreational and dependent use can be difficult to define. It is helpful to focus on problematic use (including physical, social, psychological and/or legal problems), the method of use (route of administration), or dependence (addiction). The diagram below illustrates the dynamic patterns of ATOD use.

Myths of ATOD use

There are many myths based on people’s assumptions about ATOD use, and these beliefs can negatively impact on both the people with the ATOD problem and their families and friends.

Some common myths are:

‘It is someone else’s problem’

Nurses and midwives are in ideal settings across the health system where they can help to address ATOD problems rather than leaving this solely up to the ‘specialists’ (de Crespigny 1996; Ghodse 1995).
‘People who have drug and alcohol problems are always “hopeless” people’
Most people with ATOD problems have or want to have jobs; they manage their households, raise their children, and have a range of other responsibilities.

‘Addicts are beyond help’
Many people who experience ATOD dependence (addiction) can (and do) modify or cease their harmful ATOD use. However this usually happens over time and when their situation supports this. Many people, often without professional help, move away from their ATOD dependence. This may mean that they become abstinent or that they reduce their ATOD consumption to a safer level that they can control.

‘All substance misusers are dependent on drugs’
Many people use ATOD, most socially or recreationally, and while they may experience problems associated with hazardous use (such as intoxication), it is only a smaller proportion of users who become physically and/or psychologically dependent on their ATOD.
(Clancy, C. & Coyne, P. 1997)
1.2 **Harm minimisation**

**Harm minimisation**
The concept of harm minimisation, and its various practical applications, is based on the acceptance that ATOD use exists, is likely to continue, and is widespread across all levels of the Australian and the international community. This does not preclude abstinence and is interrelated to harm, demand and supply reduction.

**Harm reduction** as a way of reducing the impact of ATOD-related harm to individuals and the community, through a range of cost-effective public health policies, strategies and practices.

By their numbers, roles, knowledge and skills, opportunities and scope of practice, all nurses and midwives are well placed to identify risks or harms associated with people’s ATOD use, and can apply a range of harm reduction strategies and interventions that enhance safety and wellbeing. One such strategy is to increase the capacity of general nurses, midwives and other health professionals to respond more effectively to ATOD issues by enhancing their clinical knowledge and skills. This will benefit the whole community by reducing the burden of preventable ATOD problems on our health sector and other services.

The harm demand and supply reduction approaches do not accept or encourage unsafe ATOD use or in any way abandon the goal or importance of abstinence of ATOD. It simply means that abstinence is one of a range of strategies and therefore not the only goal.

Harm demand and supply reduction strategies currently found to be effective include:

- assessing and addressing ATOD use problems at each possible contact point of clients across the health system (such as in emergency departments, well person’s health checks, pre-admission clinics, other specialist health units such as diabetes clinics, midwifery services, STD clinics, heart health clinics, adolescent and adult mental health services)
- legislative measures (such as restricting tobacco advertising and random breath testing to identify dangerous drink-driving associated with alcohol consumption and intoxication)
- controlling availability of ATOD (such as not selling alcohol or tobacco to people under 18, restricting certain drugs to prescription only; limiting opening hours of hotels and clubs that sell alcohol)
- mass media safety campaigns (such as not drinking and driving a car or boat, health and safety risks from binge drinking, smoking, or injecting psychoactive drugs)
- educating communities about the harmful effects of unsafe ATOD use
- health promotion campaigns (such as to prevent the uptake of smoking by children and young people, unsafe drinking amongst teenagers, risks of drink spiking in pubs and clubs, promoting use of light beer as a safer alternative to binge drinking on full strength beer)
- providing clean injecting equipment (such as disposal units, needles, syringes, swabs, water)
- providing access to abstinence-based services (such as therapeutic communities or self-help programs like Alcoholics Anonymous—AA, Narcotics Anonymous—NA, Marijuana Anonymous—MA)
• providing pharmacotherapy services (such as methadone or buprenorphine maintenance for heroin and other opiate dependence, naltrexone and/or acamprosate for alcohol addiction, nicotine patches or gum for nicotine dependence)
• providing access to ATOD withdrawal (detoxification) services for supervised alcohol/drug withdrawal and rehabilitation services
• providing information to the community about how to access confidential clean needle and syringe programs.
1.3 Non-judgemental care

People who use ATOD are commonly stereotyped by others. If clinicians hold such stereotypes, they do not have an accurate picture of the diversity of people who, for a variety of reasons, experience problems associated with their ATOD use.

Incorrect beliefs and inaccurate information can lead to the continued stigmatisation of people, resulting in ATOD users being reluctant to seek help. For clinicians to be effective, ATOD needs to be viewed and responded to by them as the health issue that it is, and not a moral issue by which we judge.

Barriers to people seeking help

There are a wide variety of reasons why individuals, families and communities do not or cannot seek help for problems associated with their ATOD use. Some of these are:

- fear of professional judgements (such as being seen as an ‘unfit parent’ or not considered to be as deserving of a hospital bed as another person who has a ‘legitimate’ condition)
- inconvenient opening times (such as poor access to care by people who work, have children or live far away)
- money problems (such as being unable to pay for their chosen program or travel to the service, or having to leave paid work to enter rehabilitation)
- culturally unsafe services that have not been designed to meet the needs of culturally and linguistically diverse clients and their families (including Aboriginal and Torres Strait Islander peoples, migrant groups and ‘same sex’ couples)
- fear of being labelled a ‘junkie’, ‘addict’ or ‘alcoholic’
- fear of lack of confidentiality (such as their employer, parent or other family member/s or members of their local community finding out about their ATOD problem)
- age (most ATOD services are unable to address the needs of people under 16 years of age or older people such as those 60 years or more)
- gender (there are few services designed to meet the needs of women or that accommodate children with their parents who are seeking specific ATOD treatment)
- fear of professional consequences (professionals such as nurses and doctors with ATOD problems that are affecting their work often fear recognition and judgement by colleagues and supervisors, and the possible consequences).

Engaging in ATOD intervention and treatment

Nurses and midwives can offer effective care by ensuring that people in their care who are at risk of ATOD problems know about the relevant services that may be able to assist them, and how they can access these services. It is important to provide information about what are appropriate services, and which of these services can offer appropriate care to culturally diverse groups, men and women, and young and older people. People always need to know what to expect from these services (such as counselling, ‘live-in’ rehabilitation, ‘abstinence only’ goal, hours of operation, eligibility for assessment and care, visiting hours, access to child care and acceptability of live-in children with parents receiving treatment) so they can make a well-informed decision about whether they want to seek assistance from a service. All health professionals should have a current working knowledge of the range of necessary services that are needed and their availability for the people they serve (Coyne & Wright 1997; Hudson 1994; Nicholson & Ussher 1992; Clancy, C. & Coyne, P. 1997).
1.4 Understanding ATOD problems

Theories of ATOD use
Knowledge of the key theories that underpin our current understanding about ATOD problems offers a useful basis for understanding what is happening in a person’s life, their drug use situation, and why particular clinical interventions and treatment programs are likely to be helpful. Over the last 50 or so years, varied theories on the nature and aetiology of ATOD problems have developed. These were generally culturally-bound and not necessarily evidence-based. The following table describes the main theories.

Table 1.1: Summary of common theories of ATOD use

<table>
<thead>
<tr>
<th>Aetiology</th>
<th>Moral</th>
<th>Disease</th>
<th>Symptomatic</th>
<th>Learning</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weak or bad character</td>
<td>Biological factors, possibly genetic</td>
<td>Another primary mental health problem</td>
<td>Learned, behaviour disorder</td>
<td>Environmental factors</td>
</tr>
<tr>
<td>Focus of treatment</td>
<td>Control of behaviour through deterrent punishment</td>
<td>Abstinence to stop progression of disease</td>
<td>Improved mental functioning</td>
<td>Learning behaviour alternative to or incompatible with harmful ATOD use</td>
<td>Improved social functioning</td>
</tr>
<tr>
<td>Advantages</td>
<td>Responsibility for change lies with user</td>
<td>Not blaming or punitive</td>
<td>Not blaming or punitive. Emphasis on importance of diagnosing and treating co-existing mental health problems</td>
<td>Not blaming or punitive. Holds user responsible for new learning</td>
<td>Easily integrated into other models</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Punitive</td>
<td>Absolves user of responsibility to change. Ignores psychological cultural and environmental factors</td>
<td>Implies treatment of mental health problem is sufficient</td>
<td>Tends to ignore personality—disabling consequences of excessive ATOD use and irrationality of human beings</td>
<td>Implies change of social situation is sufficient</td>
</tr>
</tbody>
</table>

(Checinsk 1996 in Coyne & Wright 1997)

As you can see, there are different ways of understanding ATOD problems. Currently the research supports the view that ATOD use is common, problems are varied in severity and likely outcomes, and may be transient or complex and chronic. We know that ATOD problems are influenced by factors relating to the individual person, the pharmacology and pharmacokinetics of the drug, cost, availability and legal status of the drug used, and the context of their ATOD use.
Following are two useful theories or models that offer ways of understanding the types of problems people may have. The first, Thorley’s model, is a system representing a spectrum of alcohol problems. The second is an interactive model of the drug use experience. These form the basis of the ATOD assessment and interpretation of the key issues that arise from that assessment. They can therefore inform the choices of interventions and pathways of care we can offer clients.

ATOD use can be relatively safe depending on the age, gender and general health status of the user, the pattern and context of use, the purity and type of drug/s used, frequency of use, the actual dose and route of administration, and immediate environment in which the drug/s is used.

On the other hand, any ATOD use can be non-problematic. Intoxication can occur without harm, regular use can occur without being excessive and dependence can occur without harm.

Based on the pattern of use resulting in intoxication, regular excessive use and dependence, there are risks and harms, and people can engage in any of these patterns of use at some stage in their ATOD use ‘career’.

Figure 1.2: Spectrum of problems

(Thorley, A. 1982)

Model 1: A spectrum of alcohol problems (Thorley’s model)

Thorley developed a system representing the spectrum of ATOD use problems based on the incidence, magnitude and characteristics of alcohol consumption in the overall population (Thorley 1982). These were problems arising from intoxication, regular use and dependence.

Problems arising from intoxication

Intoxication is associated with ‘once off’ use, binge drinking, recreational drug use, injecting drug use, infrequent or sporadic use of combinations of drugs including medications. Problems may include:

- toxicity
- accidental injury/trauma
- headaches
- nausea/vomiting
- drowning
- overdose
- absenteeism
- choking
- work problems
- violence
- interpersonal problems
- memory loss
Problems arising from regular excessive use

Regular excessive use is typified by daily or almost daily use. This pattern may be harmful to safety and health if the level of consumption is beyond safe limits, such as no more than 20gms of alcohol (two standard drinks) a day for a healthy adult woman who is not pregnant, or 40gms a day for a healthy adult man. This applies even though the person does not exhibit intoxication due to neurological or physical tolerance, in which case they would need higher doses to reach the same intoxicating effect they had when they first started using the substance.

This pattern can be associated with short-term memory problems, sleep disturbance, poor work performance, social problems with friends and/or family, illness such as chronic gastritis, poor general health and financial problems. Even though the person is not psychologically dependent on the drug, they may experience the withdrawal syndrome if they cease or drastically reduce the quantity of drug due to neuro-adaption of their central nervous system due to the dose and frequency of use.

Withdrawal may occur, maybe for the first time, during an admission to hospital for an injury or treatment of a medical condition, and may not be predicted by either the person themselves or the medical and nursing team unless the person’s drinking history is taken.

Regular excessive use can result in:
- acute and chronic problems such as organ damage, heart disease, kidney disease, infections, diabetes, high blood pressure, stomach disorders, liver damage, brain damage
- comorbidity associated with hepatitis B and C, diabetes, mental health disorders
- nutritional/weight problems
- sleep disturbances
- financial problems
- social and relationship problems
- memory problems
- difficulties organising and problem solving
- difficulties learning new tasks
- mood swings
- psychoactive drug tolerance and neuro-adaption
- psychoactive drug withdrawal
- poor work performance/attendance.

Problems arising from dependence

Dependence (addiction) is a chronic relapsing condition whereby the person cannot be without the ATOD on a frequent and daily basis. This is a complex physiological and psychological state, and depending on the duration of the half-life of the drug, the person may need to use multiple doses of the drug each day. This condition can vary in severity for different people, and despite its complexity, people may be able to recover and move away from this pattern of drinking or drug use.

Dependence is often associated with acute and chronic health and social problems. It is almost always associated with the physical withdrawal syndrome when the ATOD is ceased or if the reduction in consumption is significant. It is also usually characterised by craving and a compulsion to resume use. Resumption of the drug of choice will prevent or ameliorate withdrawal and may be the motivation for resumed consumption.
Dependence therefore involves taking larger amounts over a longer time to gain the same effect of the drug (increased tolerance), withdrawal on cessation or reduction of use.

Signs of dependent use include:

- drug use to avoid withdrawal
- craving for the drug
- preoccupation/salience of drug use
- marked change in lifestyle to accommodate drug use
- narrowing of repertoire of daily activities and social interaction
- reinstatement of the same level of use soon after a period abstinence.

The dependent person may continue use despite obvious problems relating to:

- physical illness (such as cancer, heart disease, liver disease, pancreatic or kidney disease)
- mental health problems including depression, anxiety, panic attacks, social and interpersonal problems
- legal issues and poor employment opportunities
- financial and housing problems
- vocational problems.

It is important to recognise what the person’s current pattern of use is and how this relates to their current situation regarding their health and wellbeing. Our interventions should be selected to match as best as possible their pattern of use and the nature of their problem. For example, it is pointless prescribing a 12-step program for abstinence to a young adult whose pattern is binge drinking once in a while, even if he has just experienced an alcohol-related injury. On the other hand, it is equally pointless to advocate a controlled drinking program for an elderly man who has been drinking so heavily that he has multiple health problems, memory deficits and poor problem-solving skills caused by drinking.

**Model 2: Interactive model of the drug use experience**

The second theory or model of assessment and care that is useful for understanding the types of problems people may have is the interactive model of the drug use experience. The drug use ‘experience’ is influenced by the dynamic interactions between the person, the drug/s they use and the context in which drugs are used.

This model provides an excellent framework for assessment, interpretation of problems, and selection of interventions for people with ATOD use issues.

Figure 1.3: The interactive model

(Tzinberg, N. 1984)
**Integrating the models**

These models are widely accepted in this field as highly relevant, and are used to inform Australian government ATOD policies, health promotion strategies, harm reduction programs and interventions.

Clinicians can benefit greatly from integrating these models into the ATOD clinical assessments, interventions and prevention strategies for their clients.
Section 2
Client care


2.1 Communication and cultural issues

Introduction
Effective communication, which is clear and non-judgemental, assists in building rapport and developing a sense of trust in people. This is the key to undertaking a quality assessment, understanding the person’s major issues, and managing ATOD-related problems, including any concurrent physical or mental health problems.

The Australian community comprises people from diverse cultural and linguistic backgrounds. The nursing and midwifery professions have made explicit their ethical views regarding the need for non-discriminatory policies and practices in delivering quality care to all people.

Across all Australian state and territory governments, there is the expectation that people will be treated with fairness and dignity. Therefore nurses and midwives have the responsibility to ensure that people of culturally and linguistically-diverse backgrounds who have ATOD problems are shown respect and treated equitably and with dignity.

As primary service providers, nurses and midwives often provide the link between the person, other members of the multidisciplinary team, their client’s family, and other service providers, including specialist ATOD services.

General principles of communication
- ATOD use is a health issue, not a moral issue.
- Whatever their age or circumstances, a person’s recent ATOD use history should be taken as part of the general routine clinical assessment—not only if they have been identified as a ‘likely’ or are suspected or known to be a person with ATOD problems.
- Cultural and linguistic diversity can make communication difficult. Use of culturally-appropriate interpreters, including Indigenous interpreters, is essential to overcome potential barriers.
- Clinicians need to be clear and straightforward about who they are, their name, their role, what they need to know from the person, and why they are asking about ATOD use.
- Clinicians need to attend to the person’s immediate concerns before trying to address sensitive issues that may be, at the time, less important to the person themselves. This includes their ATOD problem.
- Clinicians need to listen to what the person wants, why they may be worried and what they believe will help them. This communication can only happen if rapport and a sense of trust have been developed.
- Clinicians need to show their concern about the person’s ATOD use problems without prejudice.

Improving cross-cultural communication
Effective communication with people from diverse cultural groups is crucial in understanding and responding to their ATOD issues.

It is important to note that there can be cultural differences within particular groups in any community, including children, young people, old people, women and men. Nurses and midwives providing services to diverse groups need to liaise and consult with bona fide cultural and bilingual workers, trained interpreters and liaison staff to enhance the likelihood of timely and sound assessment, problem identification, intervention and appropriate referral.
People from other cultural groups may interpret your requests differently than you expect, have different meanings for particular words or have different expectations of your service. Their ATOD and other health-related experiences and environments might be quite different from those of other people.

The following suggestions are therefore helpful when working with people whose cultures may be different from your own.

**Use approved interpreter services**

When there are spoken and/or written language difficulties, it is very important to use a professional interpreter service. Relatives, friends or untrained staff may inhibit the person’s options of what they can talk about. There may also be concerns regarding confidentiality, and so wherever possible, avoid using family or friends as interpreters.

**Emphasise description rather than interpretation or evaluation**

Interpreting or evaluating what someone has said or done—rather than simply describing it—is based more on the observer’s own culture and background than on the actual observed situation. Suspend judgement so that you have sufficient time to observe and interpret the situation from the person’s (and family’s) different cultural perspective.

**Show empathy**

Before communicating with the person, put yourself in their ‘shoes’. Ask yourself what their experiences and frames of reference might be, and how you might feel if you were them. Try to see the other person as they are, not what or whom you think they may represent.

**Provide ongoing evaluation of assessment and care**

Once we have identified and developed an explanation of the ATOD problem/s (such as homelessness and alcohol dependence), we need to treat our interpretation as a ‘working’ diagnosis that needs to be reviewed effectively in a timely manner, and revised and adapted as necessary. Through seeking feedback from the person, and family if appropriate, interpreting their responses to our diagnosis, care and interventions, we will be better placed in offering effective strategies and assisting them to overcome, or at least minimise, their problems.

**Be clear, concrete and specific**

If culturally appropriate, communicate as directly, clearly and specifically as you can. This may be between you and the person or through an interpreter. This approach will aid your communication and encourage the person to feel that they will be respected by you. Encourage the person to be concrete in their explanations and specific in their responses to your efforts.

**Respond with immediacy and timeliness**

When people first meet us they need us to respond directly to them as individuals, to help them feel accepted, to listen to their concerns, and give assurance that we will try to meet at least some of their immediate needs. Once their confidence is gained and they are feeling more at ease, we are in a better position to assess and address any ATOD issues they are experiencing.

**Respect taboo**

ATOD issues may be taboo in particular cultures, families or generations. If so, it is important to find ways to raise and address these issues, and find how and when this is appropriate. We need to help people to speak about their ATOD use and related issues, if
at all possible, in ways that they feel most comfortable. The age and gender of the nurse or midwife may inhibit or assist in this process, and so it is important to try and ascertain whom they would feel most comfortable talking to if this is an option. Seek guidance from appropriate cultural and other advisers, trained interpreters, or a suitable family member or trusted friend, if available.

Be sensitive to embarrassment

Showing other people that things are ‘normal’ when this is not the case is a common way for people to deal with their ATOD problems.

Many people are too embarrassed to report that they or a family member needs help with their ATOD-related issue. They feel ashamed and they will be judged by health professionals and others. Often the person has had previous experiences that have made them feel embarrassed or demeaned or they may know of situations of friends and family members that have resulted in shame.

Parents may feel that it is only ‘other people’s children’ or people from other ethnic communities who use ‘drugs’. It is important for nurses and midwives to acknowledge that people from all communities use drugs, whether they be medicines, tobacco, alcohol or illicit substances, and that young people and adults from any community can experience the risks and harms associated with intoxication, regular excessive use or dependence.

Health professionals need to provide an atmosphere in which people can reveal and discuss sensitive issues knowing that their experiences will be listened to and validated and that their confidentiality will be maintained.

Examine your own expectations

It is useful for us to examine and define what we actually expect of the person who has an ATOD problem. By honestly clarifying our own feelings, beliefs, attitudes and responses towards the other person with ourselves, we can then act to prevent our behaviours impacting negatively on them.

Working with Aboriginal peoples and Torres Strait Islanders

All groups in the Australian community, including Aboriginal and Torres Strait Islander peoples, have varying cultures, which means that their practices and beliefs may differ. Like other Australians, Indigenous people also live in different community settings (in urban, rural and remote areas) and may have varied life experiences. The ways in which people from Indigenous communities use ATOD are affected by their social and economic contexts, physical environments, living conditions, level of employment, access to education resources, and most importantly, the historical and contemporary influences that impact on all areas of their lives today.

All of these factors can affect Indigenous peoples’ choices and use of ATOD and the problems that may occur. Significantly fewer Indigenous Australians consume alcohol or other drugs (except for tobacco) per capita than non-Indigenous Australians (AIHW 2001, Saggers & Gray 1998), and yet those who do use drugs such as alcohol, consume at high-risk levels and experience many harms as a consequence.

Because of the cultural diversity of Indigenous Australians, we need to remember that there is no simple ‘recipe’ or set of instructions for working with particular groups, individuals or their families. It is necessary for clinicians to show respect, seek advice from cultural interpreters, and utilise Aboriginal liaison staff and other Indigenous professionals where necessary and as requested. It is wise to suspend any pre-judgements so as to develop rapport and better meet the person’s needs.
To undertake an effective ATOD assessment and provide quality care for Indigenous people, nurses and midwives need to be aware of some specific factors that may impact on their Indigenous clients and their families. These include:

**Effects of previous contact with health and other institutions**

Many Indigenous people (or their loved ones) have had bad experiences in hospitals and other institutions when in ‘care’ of doctors and nurses. These experiences include having their babies taken away, being kept in separate facilities from family members, being segregated from ‘white’ people or being given medical treatment without explanation or giving informed consent. These practices have occurred as a result of various government and institutional policies and prejudices.

While incidents such as these have happened over the years since colonisation, non-Indigenous people may view them as past history and therefore not relevant now. However, distress and the aftermath of incremental trauma, loss and grief is long-lived within and across today’s generations. And inappropriate practices still occur and result in enduring harms.

Many non-Indigenous health professionals are not aware of how government health, social, housing, child protection and other policies have been directed at Indigenous people, and may still believe that ‘the past is best forgotten’. However, the history of these policies, and their continuing impact, has a very definite bearing on the way Indigenous people interpret and respond to their current and future experiences in the health and social care system. There remains a justifiable ‘residue of suspicion’ among Indigenous people towards non-Indigenous people who are seen to be ‘in authority’, including nurses and doctors (University of Queensland 1999).

Thus all nurses, midwives and other health and welfare professionals need to be aware of how institutional racism has impacted, and continues to impact, on Indigenous Australians. Nurses and midwives need to ensure that they offer services that are accessible and sensitive to all Indigenous people (Eckerman et al. 1995).

**Continuing ill health**

Indigenous people have the worst health status of all Australians and most others in the world (AIHW 2001). Their use of hospital outpatient and emergency departments is more frequent than that of non-Indigenous people, with Indigenous people being about three times more likely to use public or regional hospitals and outpatient services than a family doctor’s surgery. This is often because the hospital is the only service available to them, it’s free, or there is no general practitioner nearby. Indigenous people are admitted to hospital between 1.6 and 3.2 times more often than other Australians, meaning that they are more likely to have experienced medical interventions (and therefore have been at high risk of having had bad experiences in hospital) than other Australians (University of Queensland 1999). The poor levels of social and emotional wellbeing of Indigenous people is a direct reflection of their overall status in society, worsening health reflected by the highest morbidity and mortality rates and shortened expected life span compared with non-Indigenous members of our community (AIHW 2001; de Bellis, de Crespigny, Cruse, Kowanko, Murray, & Turner 2001).

**Effects of hospitalisation and fear**

Many Indigenous people have had multiple losses of loved ones and accumulative grief throughout their lives, including being removed from family and community, being incarcerated in prison or mental institutions, or being a member of the ‘stolen generations’. Loss of children to ‘white man’ has been devastating and can adversely affect
how Indigenous people view all institutions, including hospitals, other health care and social services and those who work in them.

The clinical atmosphere and abrupt interactions of staff in hospitals and other medical settings can be barriers causing Indigenous people to feel uncomfortable and out of place. (Uni of QLD, 1999).

Indigenous people commonly fear being in hospital, having to talk to non-Indigenous people, being separated from their families and community, and not understanding the language. Many Indigenous people do not have English as their first language. In addition they may not understand what is happening to them, misinterpret the behaviours of health professionals, and may not understand their medical problem/s and any subsequent medical or nursing procedures.

Because our verbal and non-verbal language is culturally defined, it therefore can be unclear and misunderstood. Some communication may be perceived as threatening by Indigenous people. As a result, they may become afraid and even less able to communicate with us.

An Indigenous person’s fear and anxiety may manifest as anger, terror or an apparent unwillingness to ‘cooperate’ in the situation, leading to further misunderstandings. It is therefore doubly important to use effective interpersonal skills and to try and offer a culturally-safe environment wherever possible.

Communication suggestions
Here are some ways in which we can communicate more effectively with Indigenous people.

*It is helpful to:*

- show your respect by treating the person and their family members as you like to be treated.
- show your interest in the person and not just their illness or problem.
- If you are unsure about how to behave with the person (e.g. you are a woman and he is a man) ask them, or a family member, friend or cultural interpreter what they would like you to do.
- remember that Indigenous people consider themselves to be inseparable from their family—this means you are caring for the whole family, not just the individual.
- enlist the help of an Indigenous liaison officer in the care and discharge planning for your client, and seek their advice and assistance wherever possible in regards to meeting the client’s needs (providing they have given their informed consent).
- be friendly and empathic, and do not call the person by their first/given name unless they have requested you to do so or you have specifically sought their permission and they have agreed.
- smile and present yourself in a confident, friendly and professional manner.
- take enough time to introduce yourself, explain the nature of your service and your role, and what is likely to happen to them.
- spend time talking generally (e.g. try to find some common ground) before asking about any personal health or other issues, and explain why you are asking such personal questions and what happens with their information.
- be aware that the person is most likely to need a relative, friend or other trusted person present when you speak with them, and perhaps throughout their admission. However, this cannot be assumed and the person’s wishes should be ascertained and respected before contacting others.
be careful about how your ‘non-verbal signals’ may be interpreted. It may not be appropriate, for example, to stand directly in front of the person and look into their eyes, or stand over them as they lie in a bed or sit in a chair and look down on them. Seek advice if you are unsure how best to present yourself.

be welcoming to their family members or other visitors.

avoid using medical terms (jargon) and explain what you mean clearly and in simple terms. Always assess if the person understands what you are saying by seeking feedback from them. Re-explain the issue until you are confident that they understand what has been said. Drawing pictures on paper or a whiteboard can be useful.

be aware that most Aboriginal people from urban, rural and remote areas still value and adhere to cultural practices such as ‘men’s business’ and ‘women’s business’. They may be offended and upset by being questioned on personal issues or physically examined by a younger clinician or someone of the opposite gender.

listen carefully to the person. Be aware that a silent pause does not necessarily mean the person has completed their answer to the question. It may be helpful to ask whether the person has anything else to add or needs further clarification before proceeding to the next question. If the person does not respond to something you ask, wait and then try rephrasing the question. You need to move on if it becomes clear that the issue at hand is causing discomfort or embarrassment.

be aware that a person may be hostile towards your role based on past experiences, and not necessarily towards you personally. Being friendly, non-judgemental and respectful is the best way to overcome such difficulties.

display hope and optimism about a person’s ability to address their ATOD problem. Like others, health professionals can be pessimistic about the ability of people with ATOD disorders to overcome their problems, and this view can include Indigenous people. Optimism about change is essential for a person to feel they can change. Offering stories of people who have been able to do this can be useful, providing no real names are disclosed. (Brady’s 1995 book *Giving away the grog* is full of inspiring stories of Aboriginal people who have overcome their drinking problems.)

link any of your health advice about ATOD use to the person’s own ATOD use, health (and other) related problems. This is usually far more effective than giving general health information, such as ‘heavy drinking adversely affects diabetes care’.

ensure privacy when talking about ATOD and other sensitive issues.

where it is necessary to take notes, explain why this is needed and offer the person the opportunity to see or read what you have written. Also explain this to their trusted companion.

*It is helpful not to:*  

assume anything or base your responses on what you believe might be a person’s situation, illness, ATOD problem, cultural background or experiences as an Indigenous person. By providing a comfortable atmosphere and undertaking a thorough assessment of their general health and ATOD use, you will be able to make clearer clinical judgements and provide sound nursing care.

rely on stereotypes such as ‘all Indigenous people drink excessively’. This is not only offensive and untrue, but likely to lead to their actual health problems being ignored or mis-diagnosed.

be confrontational when talking with the person or giving them advice about their ATOD use. Confrontation does not change people’s views about how to deal with their issues and may further entrench their resistance to reducing or ceasing their ATOD use. It is offensive, increases shame and embarrassment, and does not encourage openness and information flow about sensitive issues. More than likely this may result in your efforts and services being rejected.
• give the impression that you are too busy to talk or have little time to be friendly. Indigenous people often say they wish professionals would get to know them a little before asking personal questions about their health issues or implementing clinical procedures that may be frightening or misunderstood (Eckerman, A., Dowd, T., Martin, M., Nixon, L., Gray, R. & Chong, E. 1995).

**Responding effectively to diversity**

Responding effectively to cultural and/or linguistic diversity requires flexibility of approach and creativity in ensuring that services are appropriate for the individual (and family) rather than requiring the person to comply with rigid guidelines that may not be appropriate for them.

Flexibility will foster rapport and better understanding with the person and a greater willingness to participate and cooperate in the treatment needed.

*To be flexible:*

• keep an open mind, even in unfamiliar situations.
• be aware of how various groups may prefer to interact within their own communities and with others like themselves.
• make an effort to understand the particular social and family protocols of culturally diverse people.
• empathise with those who have experienced traumas in their lives such as grief from loss of loved ones, torture or rape before leaving their homeland.
• respect and try to work with the person’s concepts of time, their priorities, their pace of communication and doing things such as undertaking daily tasks.
• be aware of how you and your role might be perceived and the possible impact this could have on various interventions and treatments and the outcomes of your service delivery.
• start your approach by looking at the similarities that might bring common understanding between you and the person, such as being a parent, a professional, a woman or man, being younger or older. Don’t just focus on differences.
• be aware that gender roles and age dynamics are often viewed differently by other communities. You may need to provide a clinician of the same gender or age range to care for the person if at all possible.
• understand how to ascertain the person’s religious requirements. In addition, be aware that religious beliefs and practices influence the person’s particular needs from your service (they may, for example, need a prayer room or special diet).
• be aware that people from culturally diverse groups and communities may mistrust the motives of government workers due to previous political and/or historical experiences. This is not likely to be a reflection on you but rather your role, so try not to take this personally.
• be willing to adapt and learn from diverse groups and how best to communicate with them.
• be consistent and reliable.
• remember that when a person is stressed, ill or affected by medications, alcohol or other drugs, their ability to understand and speak English may diminish if it is not their primary language.
Working with young people and children

Children and adolescents require particular attention and sensitivity when dealing with their alcohol, tobacco and other drug use.

They may be vulnerable due to family conflict or other issues. Informed consent for children to be treated for substance problems, as with all other health matters, needs to be given by a well-informed, responsible parent or guardian. In certain circumstances (such as not living at home, being at risk of abuse, not being in care of parents, or privacy needs), adolescents can give their own informed consent for treatment. The clinician must follow organisational policy and state laws in this situation (Monica McEvoy, Women’s and Children’s Hospital, South Australia, pers comm. Tuesday 19 November, 2002).
2.2 Assessment

Introduction
People come to hospital or other health services for a variety of reasons relating to their health needs. They may not believe that there is any need to mention their ATOD use to the clinical staff. By maintaining an empathic, non-judgemental attitude and explaining why all people over the age of 14 years need to have an ATOD assessment as part of their general health assessment (based on the age of uptake of ATOD, patterns of ATOD use of and related risks to the Australian population), we can encourage them to talk openly about their ATOD use and any concerns they may have.

(For drug-specific assessment guidelines, see Section 2.4: Managing intoxication, Section 2.5: Managing overdose; and Section 2.6: Managing withdrawal.)

Rationale for assessment
The importance of the ATOD assessment cannot be overstated. Importantly it is an ideal opportunity to deliver brief intervention in a timely manner. Assessment is an intervention in itself as it raises the issue of ATOD as a common aspect of many people’s general health concerns, alerts the person and their clinicians to any potential risks or actual problems that may exist, and provides a timely opportunity for ATOD education, information giving and early intervention.

An ATOD use assessment is important to:

• identify immediate problems
• treat any emergency or acute problems
• establish a correct differential diagnosis
• predict the effects of intoxication, assess its life-threatening potential, and inform appropriate intervention
• identify the purpose or reasons for the person’s ATOD use
• identify issues related to possible medical complications of ATOD use
• assess the possibility of any drug interactions (e.g. between medications and other drugs the person may have consumed recently and any prescribed medications needed at the time for medical treatment)
• identify the likelihood of dependence, predict the likelihood of withdrawal, assess for imminent withdrawal and possible complications
• identify history of any previous withdrawal syndrome to predict likely severity of withdrawal and possible complications such as seizures and hallucinations
• assess risk behaviours including self-harm
• provide education on harm reduction skills (e.g. always using clean injecting equipment and knowing where/how to get these, hepatitis B immunisation, daily Thiamine for excessive drinkers)
• gain a greater understanding of the person not merely in terms of their current ATOD and other symptoms
• determine the person’s goals related to their ATOD use and if they want any assistance to change their use at this time/stage (e.g. start using nicotine patches or gum, having a planned-supervised withdrawal and starting counselling)
• select appropriate interventions and service options so that timely and acceptable referral can be organised. These may include transport to a sobering-up service if medically fit, engaging in counselling or pharmacotherapy such as methadone or
buprenorphine programs, entering a rehabilitation program such as a ‘live-in’ therapeutic community, accepting a visit from an Alcoholics Anonymous or Narcotics Anonymous and attending their meetings.

Assessment is the first step in:

▪ developing a therapeutic relationship
▪ identifying immediate needs and possible complications (such as concurrent health problems, psychoactive drug withdrawal, prescribed medication administration and pain management needs)
▪ understanding the individual, family and/or community
▪ identifying the goals of the person and/or their family in relation to their ATOD use
▪ offering well-matched intervention/treatment for the individual's ATOD problems
▪ clarifying the reasons for any treatment procedures during the admission or episode of care
▪ informing care and discharge planning, and any need for ongoing care and referral
▪ providing harm reduction strategies and skills to ensure that further risks can be reduced (e.g. provision of clean needles and syringes, swabs and sterile water; advice on using low strength alcoholic drinks and daily Thiamine).

Always remember that what appears to be an ATOD presentation may not be. Rather it could be a condition that is mimicked or complicated by intoxication or withdrawal. Some diagnoses may be confused by the presence of alcohol intoxication or withdrawal. This could lead to medical problems being overlooked. Such problems include head injury; cardiovascular accident (CVA); infection, hypoxia, hypoglycaemia and other metabolic imbalances, liver disease, overdose; adverse drug reaction and psychosis.

Assessment should be carried out in a timely manner that is in a safe, confidential environment with sensitivity towards the person and their family, and respect for their cultural identity and associated needs (Clancy & Coyne 1997).

Using a client-centred approach

Quality nursing and midwifery ensures that the health needs of individuals are kept to the fore and holistic care is provided.

Nursing care needs to be focused on empowering the person to manage their own lives to their full potential. Some people take longer than others to trust health professionals and services. People are more likely to enter into a relationship where they are assisted in identifying and expressing their own needs and can set goals and objectives to achieve them, such as reducing or abstaining from harmful drinking (Edwards, Marshall & Cook 1997; Jarvis, Tebbutt & Mattick 1995; Egan 1990).

Maintaining confidentiality

Under common law, statutory law and codes of practice, nurses, midwives and allied professionals have a professional duty of care relating to honouring and maintaining client confidentiality. The person’s right to confidentiality means that all clients must have this clearly defined and explained to them before being asked to reveal any personal information. Information can be provided to third parties on their behalf only if their specific written permission is provided before this occurs. They also need to understand any legislation that limits this (such as the requirement for mandatory reporting of child abuse or being unfit to possess a firearm) so that they know what boundaries exist before they divulge information. People need to know that their personal information will be respected and only shared with the clinical team responsible for their care. They also need to know that their clinical records can be subpoenaed by courts of law.
Strengthening motivation

When a person attends a specialist service they will generally have developed at least some awareness that an ATOD problem exists. When people are receiving care in a general hospital ward, mental health or community health care setting, they may not be aware that they have an ATOD problem. The degree to which a person may be aware of their ATOD use and their desire and readiness to change and/or seek help is directly related to their recognition that a problem exists and that the benefits of use are now outweighed by the negative aspects and harms. They may also believe that change is possible, that they have (or can develop) coping mechanisms, and that their life can improve (Edwards, Marshall & Cook 1997; Clancy & Coyne 1997; Prochaska, Di Clemente & Norcross 1992; Rollnick et al. 1992).

Their understanding and willingness to consider the issues and the possibility for change can be positively influenced by nursing staff at what may be a ‘critical moment’ in their life in contact with health professionals wherever they are receiving health care. In order to strengthen people’s motivation to reduce or change their harmful ATOD use, assessment is a critical process of information-sharing between client and the nurse, and an important trajectory towards engaging in more in-depth care or referral should this be needed.

Issues for assessment

People’s ATOD use can be controversial, particularly if this involves illicit drug use. Some nurses and midwives may feel reluctant about discussing drug use with people, particularly if it is seen as not affecting the person’s presenting problem. The ability of staff to raise the issue of ATOD use is critical to identifying any problems, offering early intervention and minimising risks.

In working with people with explicit ATOD problems, it may be necessary for you to raise some rather difficult issues. The skills involved in effectively raising sensitive issues such as these are the same skills nurses use to ask about many other personal issues.

Possible factors that may cause nurses to feel reluctant in raising ATOD use may include:

- may not be the presenting health problem
- a reluctance of the nurse to ‘pry’ with the worry that this may jeopardise their therapeutic relationship with their client
- poor knowledge about ATOD use and related issues
- a belief that only ATOD specialists can address these problems
- a lack of confidence in responding effectively if an ATOD issue is revealed
- a belief that if the other presenting problem is ‘fixed’ then underlying ATOD issues may go away
- a belief that only people who are ATOD-addicted require assistance for their ATOD problem
- a degree of comfort/discomfort with one’s own ATOD use such as smoking or binge drinking or one’s own experience of a difficult family issue
- a belief that ATOD problems are too difficult to fix and therefore there is no point in asking about them.

Misconceptions may exist regarding the most effective way to raise the issue of ATOD use. Traditionally the focus has been on people who appear to be or have been diagnosed as ‘chronic’ or ‘dependent’ users, with a strong belief that ‘denial’ is an integral component of their personalities and that confrontation will break down denial.

However, it is precisely the techniques of confrontation and labelling people ‘alcoholics’ or ‘addicts’ that produces denial, particularly among people who do not perceive themselves in this stereotypical way. This judgemental approach is unhelpful as it does not promote a safe therapeutic environment that facilitates trust, or foster rational discussion about the
reasons for person’s ATOD use and any positive and negative consequences associated with their use. As Zinberg (1984) stated, all ATOD use is functional in that it serves a purpose for the person, whether or not it has become a problem to them.

How to raise the issue of ATOD use
Routine questioning acknowledges that ATOD use is widespread in the community. ATODs may be used to have fun, cope with stress, deal with pain, stay awake, go to sleep or improve performance. ATOD use issues may occur for anyone and affect people in different ways.

It is therefore very useful to incorporate ATOD use within your general assessment routine, even if problems are not suspected. If your client knows that you do this with all clients, it normalises the issue. The advantage of this approach is that it allows for a range of problems associated with ATOD use to be recognised, and not just the more obvious difficulties such as dependence (that is, problems associated with regular excessive use and intoxication). Once assessed, ATOD problems and concerns can be identified, choices for treatment offered and a management plan negotiated with the person.

Routine questioning of all clients also decreases the responsibility on nurses and midwives to work out when to raise the issue and with whom. It diminishes the probability that people will feel singled out if you explain that you ask everyone these questions (Helfgott 1997). Importantly, it provides a unique opportunity to educate and clarify the questions the person may have about ATOD use, and in fact saves time by alerting you to any potential complications that may develop during the admission such as acute withdrawal.

Hints to assist communication
If you feel uncomfortable discussing ATOD use with your clients, these points may be useful:

▪ ascertain if an interpreter is needed and if so, ensure this occurs.
▪ tell the person that you ask all clients over the age of 14 years about their ATOD use because it is common and may affect diagnosis and treatment of their other health problem.
▪ link the person’s current ATOD use with their presenting condition (if appropriate) such as chest infection, liver disease, injuries.
▪ use non-threatening verbal and body language.
▪ use ‘open-ended’ questions (such as, ‘Can you describe a typical drinking or drug use occasion for you?’).
▪ use a comfortable environment (quiet, private, adequate lighting). If privacy is impossible, draw the screen or curtain and speak quietly to ensure others do not hear personal details.
▪ display a caring attitude (non-judgmental approach).
▪ ensure that the client knows they have the right to refuse to answer any questions and that confidentiality is assured.
▪ note any inconsistencies in what the person tells you about their ATOD use (such as their physical condition not being consistent with being a light drinker) and explore these if possible to ascertain their own understanding of what is being asked/said.
▪ if a question angers the person, leave it until later when it can be rephrased or do not ask again.
▪ take account of their ‘whole’ health profile. If there is a discrepancy between what the person tells you about their ATOD use and what you see (ascites, spider naevi on face, chronic cough, muscle wasting of legs, needle marks), record this. Combine the information you draw from the person’s own ATOD history and your clinical observations.
phrase questions that give the person permission to talk about their ATOD use, and if appropriate, ask questions that display an assumption that the person uses some form of ATOD such as medicines or alcohol. This gives the person permission to talk about their use.

- a history of the person’s ATOD use may be elicited (where possible with consent) from their partner, friends or family.
- be sensitive to the person’s ability to respond to your inquiries.

Factors that will influence the person’s response to you include their:

- age
- level of English comprehension
- culture
- gender
- personal history
- need for more privacy
- level of pain
- legal status of their ATOD use
- fear of your judgement and reprisal
- past negative experiences with health professionals
- fear of a breach of their confidentiality
- fear that parents or other family members will find out
- fear of losing their job
- fear of any other health problems they may have developed (e.g. HIV or hepatitis).

**Do not be distracted from important points**

Always make sure phones or other staff or clients do not interrupt you.

Allow for minor diversions by the person during their assessment, but try to help them to return to the point of discussion. If they seem to be avoiding answering your questions or become hostile, reassure them, and if necessary, do not proceed. Make an objective note in their case notes or assessment form about what was happening and continue to monitor the person. Return to the assessment later when they have settled and/or had pain relief. You may need to suggest that another clinician undertakes assessment if this seems appropriate. It may be that the person would prefer a clinician of his or her own gender to talk to.

**Do not allow personal attitudes to affect the assessment**

The person’s way of life and behaviours may not conform to your own personal standards of what is acceptable behaviour. Such considerations should be put aside and not affect the therapeutic process.

**Be sensitive to the person’s cultural background and language.**

(See Section 2.1: Communication and cultural issues.)

**Do not assume that the person perceives their ATOD use as a problem**

Even though people may be drinking over the recommended low-risk level (National Health and Medical Research Council 2001) or using other drugs at harmful levels, we should not assume that the person believes that this is a problem. Many people do not know that their ATOD use is risky or harmful (Prochaska & DiClemente 1983).

**A person may refuse to engage in ATOD assessment**

People are unlikely to object to their ATOD assessment if they know why it is happening (that all clients of the service are offered ATOD assessment and therefore not only for them specifically), and that questions are asked in a matter-of-fact manner as part of routine history taking. However, people do have a right to refuse ATOD assessment, and
if this happens, discontinue discussion in a way that can allow them to return to the topic at another time should they wish. Make a note of their refusal in their clinical record.

**A person may not want ATOD treatment**

If a person is intoxicated or withdrawing when in your care, wants to leave the hospital/service and has been assessed as unsafe to leave, the nurse or midwife (and doctor) must exercise their duty of care to ensure the person’s safety and wellbeing. Refer to the team leader and relevant policies to determine the appropriate course of action. Always document the situation and action taken. Best practice has been shown to include detaining the person who is delirious, dangerously intoxicated, is at risk of harming others or themselves, or is experiencing suicidal ideation, under the relevant mental health act (Kalucy, R., Head, Psychiatry. Personal communications, October 2002).

**Nursing guidelines—general assessment**

Systematic assessment of all people over 14 years of age should include:

- pattern and recent history of ATOD use
- physical assessment
- mental health history
- history of any injecting and other risk factors
- psychosocial issues
- other needs.

**Pattern and recent history of ATOD use**

The following should be covered as part of every ATOD use assessment:

- type of drug (note that polydrug use is common and the assessment should include all drugs—prescribed and over-the-counter medicines, herbal remedies, tobacco, alcohol, illicit.
- route of administration (oral, inhalation, injecting, suppository—rectal).
- frequency of use (e.g. very occasional, less than weekly, once a week, more than once a week, daily, more than once a day)
- amount used in grams/doses or daily cost (for illicit drugs such as psychostimulants, cannabis, heroin)
- duration of use at current level, any changes in pattern over time (age commenced use; recent typical pattern)
- time and amount of the last dose (where possible, clarify in exact terms, such as grams of alcohol, milligrams of methadone, grams of cannabis, points of amphetamine etc.)
- with whom is the drug typically used (e.g. friends at the pub, at work, at rave/dance parties, with family and friends at home, alone)
- past/present contact with alcohol and other drug treatment services
- any periods of abstinence and when were these
- what influenced a resumption of harmful ATOD use
- history of withdrawal symptoms on cessation or reduction of use
- history of complications of withdrawal such as seizures.

**Note:** Always consider the likelihood of poly drug use amongst people of all ages. It is vitally important that you assess for poly drug use and any immediate and longer term potential for drug interactions e.g. drugs the person may have recently used and are possibly still affected by, during admission, and any additional medications given for acute illness. In addition people who use more than one drug at a time need to be educated about the potential for accidental overdose, unwanted effects, and toxicity due to differing drug actions and half lives e.g. additive effects, synergistic effects, potentiation, or antagonism.
Validated screening instruments are essential for accurately identifying the pattern of drinking and level and nature of problem. (See Appendix 1, 1A and 1B).

**Examples of useful lead-in statements and questions**

- Do you have any cigarettes or cigars with you?
- How many cigarettes or cigars do you have with you?
- How often do you smoke cigarettes or cigars?
- How many cigarettes or cigars do you smoke each day?
- Do you ever drink alcohol?
- How often do you have a drink?
- On a typical day, how much alcohol would you have? What size container is your drink in (e.g. a stubby, small vegemite glass, cask)?
- Do you use any medicines, powders, creams or tablets other than those your doctor has prescribed for you (for example to help you relax, sleep, cope with pain, block out bad thoughts, deal with stress, feel good, have fun or excitement)?
- Do you ever need to use more of your medicine(s) than the doctor prescribed?
- Do you ever use other people’s medicines (sleeping pills, antibiotics, heart pills, laxatives, pain killers like codeine)?
- Do you use other medicines from the chemist or supermarket? If so, what, why and how often?
- Do you use any other drugs such as cannabis (marijuana), amphetamines (speed), heroin, nitrous oxide (laughing gas), GBH, ketamine, steroids, solvents (aerosol paint, glue, petrol, cooking spray) or hallucinogens (LSD, magic mushrooms, Datura)?
- Do you ever take more than one drug at a time (e.g. alcohol and cannabis, sleeping pills and heroin, amphetamines and alcohol, sleeping pills and alcohol, ecstasy and cannabis)? If so what happens?
- What benefits do ATODs give you?
- Have you ever had a problem from using a drug?
- Is there anything you like to change about your ATOD use?

Where there has been a positive response by your client to the screening questions indicating that further questioning is needed, you can include:

### Table 2.1: Drug use questions & their purposes

<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>When did you last use? (Specify date and time plus name of drug, quantity, route of administration.)</td>
<td>Identifying the type, likely pharmacological actions, possible side effects, half-life and range of ATODs used. The dose/quantity and route of administration should indicate pattern and extent of use and associated risks such as imminent overdose, withdrawal, drug interactions, risk of emergencies, infection.</td>
</tr>
<tr>
<td>What age were you when you first used this drug?</td>
<td>Establishing the onset, pattern/s and length of use. The lower the age of initiation the greater potential for subsequent harm.</td>
</tr>
<tr>
<td>Has there been any recent change in the amount and way you use (e.g. less or more)?</td>
<td>Ascertaining whether the use is/has previously been experimental, recreational or at dependent levels and any changes in pattern (e.g. reduction, increase).</td>
</tr>
<tr>
<td>Starting with today, then yesterday, then the day before yesterday etc. … which days did you use (this drug/s) over the last week? (use 2, 3 or 4 weeks if use infrequent)</td>
<td>Ascertaining whether the use is/has been occasional, recreational, binge, regular excessive or at dependent levels (NH&amp;MRC 2001).</td>
</tr>
<tr>
<td>Question</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>What times of the day do you usually use the drug/s?</td>
<td>Establishing pattern, quantity and severity of use.</td>
</tr>
<tr>
<td>Where do you usually use the drug/s?</td>
<td>Identifying the environment/s where use is likely to occur to ascertain external influences, potential risks, contexts that affect decision to use.</td>
</tr>
<tr>
<td>Do you typically use the drug/s alone, or with others? Who with?</td>
<td>Establishing whether use is typically a solo or group activity. Whether partner is involved.</td>
</tr>
<tr>
<td>What mood might you be in when you typically use the drug/s?</td>
<td>Identifying any specific events or mood states which can trigger use of ATODs (e.g. happy, sad, ‘party mood’, depressed, in pain, argumentative, preparation to go out, being at parties/raves, response to pressures, family occasions).</td>
</tr>
<tr>
<td>How does your ATOD use generally make you feel?</td>
<td>Identifying the reasons for use, likely outcomes of use, identifying any risks, identifying risk for continued problem use.</td>
</tr>
<tr>
<td>Have you ever experienced any bad effects from your ATOD use?</td>
<td>Identifying physical illnesses (e.g. overdoses, gastritis, pancreatitis, accidents, hepatitis, septicaemia), psychological (e.g. moody swings or depression, anxiety, paranoia, hallucinations, suicidal ideation), social (e.g. loss of friends/employment, family conflict), legal (e.g. loss of drivers licence, arrests, gaol).</td>
</tr>
<tr>
<td>Has anyone ever told you they are worried about your ATOD use?</td>
<td>Identifying whether use has come to the attention of, or is a concern for others such as friends, partner, family.</td>
</tr>
<tr>
<td>Have you previously tried to reduce, stop or change your alcohol, tobacco and other drug use?</td>
<td>Identifying periods of abstinence, reductions in use, change in pattern to control use, any personal strengths or weaknesses in being successful in making change. What strategies did they use that worked?</td>
</tr>
<tr>
<td>Are you worried about your ATOD use?</td>
<td>Elicit the person’s perspective of how serious they consider their use of ATODs is.</td>
</tr>
<tr>
<td>Would you like to do anything about your current ATOD use?</td>
<td>Eliciting from the person their perceived need and/or likely motivation to make changes to their ATOD use.</td>
</tr>
</tbody>
</table>

(Adapted from Coyne & Wright 1997, p. 31)

**Physical assessment**

Nurses and midwives should carry out relevant observations as appropriate. These include vital signs, neurological observations, nutritional status, fluid balance, level of consciousness and signs of ATOD intoxication or withdrawal. Examples of physical signs arising from ATOD use are listed below, many being due to the pharmacological effects, half-life of the drug or drugs used, the route of administration, accidental injury or illness arising from concurrent use.

**Signs of harmful ATOD use**

- flushed or ashen face
- swollen abdomen, ascites
- jaundice
- spider naevi on face
- puncture marks
- cellulitis
- phlebitis
- skin abscesses
- erosion or irritation around nostrils/septum
- irritation or rash around nose and mouth
- conjunctival irritation
- odour—breath, skin
- unstable or abnormal gait
- distended blood vessels along side of neck.

**Specific signs of intoxication**
- abnormal pupil size—constricted or dilated
- opioid intoxication—pinpoint pupils
- psycho-stimulant intoxication—dilated pupils
- drowsiness/decreasing alertness
- ataxia
- slurred speech
- pressured or rapid speech
- mood swings
- decreased concentration or erratic ability to concentrate
- poor or inability to manage normal tasks (e.g. lacing-up shoes, writing clearly).

**Specific signs of withdrawal**
Symptoms of the various withdrawal syndromes (e.g. alcohol withdrawal, opiate withdrawal, benzodiazepine withdrawal, amphetamine withdrawal, cannabis withdrawal, nicotine withdrawal) are due to the particular pharmacology of the drug (CNS depressant or stimulant), and its half-life.

- Symptoms emerge with a significant drop in blood concentration or abrupt cessation of ATOD use. This occurs in someone whose central nervous system has neuro-adapted to maintain normal body function in response to his or her excessive and frequent (daily) use.
- A general guide is that the withdrawal syndrome will usually exhibit opposite signs to the acute drug affects (such as, a CNS depressant alcohol withdrawal can produce increasing irritability, acute agitation, anxiety, tremor, sweating, nausea, headache, general physical and psychological discomfort). It can also progress to severe complications known as delirium tremens (DTs) and possibly death if not managed effectively.

Signs and symptoms of intoxication and withdrawal for specific drugs are detailed in Section 3: Drug-specific information.

**Past medical history**
There may exist other health conditions (e.g. diabetes, heart disease, liver disease, accidents, head injuries, abnormal menstrual pattern, menopause, poor nutrition or hydration status, or mental health problems). All concurrent health issues need to be assessed for and attended to.

Ask about:
- any recent or concerning unintended weight loss or gain
- possible injuries—recent and not so recent
- general health problems (e.g. diabetes, renal disease, cancer, stroke, infections including sepsicaemia, human immunodeficiency virus (HIV), hepatitis A, B and C, liver or pancreatic problems, chronic gastritis, high blood pressure, heart disease, breathing problems). **Note:** These are only some examples of problems that may be relevant to the person’s pattern of ATOD use and their drug administration methods.
Mental health history

Alcohol and other psychoactive drugs all affect cognition, emotions, moods and behaviours. They can, for instance, temporarily induce over confidence, mania or depression, confusion, disorientation, perceptual disturbances, euphoria, agitation, panic attacks, emotional lability, pressured, rapid or slurred speech, repetitious behaviours, fear or aggression. It is therefore important to include a mental health assessment as part of the overall ATOD assessment.

Ask about:

▪ any previous psychiatric/mental health problems such as depression, panic attacks, anxiety disorder, bi-polar disorder, schizophrenia
▪ related admissions or medical treatment
▪ any medications prescribed for the disorder—past and present
▪ any known family history of mental health problems.

The mental status examination includes observing and asking questions relevant to:

▪ current level of consciousness—any/confusion
▪ level of orientation—to time, person and place
▪ quality of memory—recent and past recall
▪ logical judgement—are the person’s responses rational? do their ideas make sense given the context?
▪ affect—does the person seem unduly anxious, depressed, flat, blunted, inconsistent with person’s expressed mood etc.? Do the person’s emotions, posture, facial expression etc. seem natural for their present situation?
▪ speech—manner of speech, speech pattern, possible disorders, aphasia, dysarthria, incoherent, disjointed, perservation, flight of ideas, how (e.g. loud, soft, fast, pressured) form—the thoughts relate to each other, logical
▪ behaviour—approach/reaction to you and their assessment interview. Does the person maintain normal eye contact if this is appropriate for their culture? What is the person doing during their assessment interview? What is their behaviour like (restlessness, hand wringing, pacing, lethargic and sleepy)?
▪ comprehension—understanding simple instructions
▪ abnormality of perception—visual, auditory, tactile, olfactory hallucinations. Are any auditory hallucinations threatening, accusing or commanding?
▪ appetite
▪ sleep—any problems
▪ mood (affect)
▪ illusions (e.g. misinterpretation of visual stimuli in the environment such as a wavy pattern on a curtain perceived as a snake moving)
▪ delusions

People with complex ATOD problems are likely to need a psychiatric assessment.

History of injecting and/or other risk factors

If in the past history, the person indicated they have injected drugs, the following should be explored. Ask if they:

▪ use clean needles and syringes and other injecting equipment (‘gear’)
▪ ever share, needles, syringes and other injecting equipment including swabs, spoons, water for dilution, tourniquets—such as a piece of cloth or a belt
▪ can access supplies, clean needles and syringes
▪ know how to inject safely to protect veins and tissues
▪ know how to safely dispose of used injecting equipment
• have adequate knowledge of HIV/hepatitis B and C issues including routes and risk of transmission, immunisation drug use
• have had any health complications from injecting (e.g. abscesses, thrombosis, viral illness, and heart or chest problems)
• have a good understanding about safe sex, the need for condoms to protect against infections and how to use condoms?

This is the ideal time to provide the person with clear information.

**Psychosocial issues**

Ask about the following:
• family (any problems or special circumstances?)
• housing (any urgent needs?)
• children (any urgent issues, current need for care or assistance?)
• employment (is this satisfactory? any immediate worries?)
• legal (any immediate worries?)
• financial (any immediate worries?)
• possible family history of ATOD use issues
• any negative social consequences of the person’s ATOD use

**Planning care**

The aim of any clinical intervention is to undertake quality care. The types of interventions chosen will vary depending on the type of ATOD problem and the particular needs of the person. Sharing the care through multidisciplinary teamwork and inter-agency collaboration is essential. All nurses and midwives have a key role in shared care. There are excellent models of shared care in general health services and these are applicable for care of people with ATOD issues.

Relevant policies and available resources in the health care setting will influence what type of interventions and outcomes occur.

During the care planning process, nurses and midwives need to assist the person to clarify their own needs and goals, taking into account priorities of clinical issues and immediate concerns, the person’s motivation to address their ATOD problem and what outcomes they want, other needs and concerns including family and housing issues.

At all times harm reduction processes need to be put in place to minimise any further risks and/or harms, whatever the person’s longer-term actions may be.

It is important that the nurse or midwife, and the person themselves, have a common understanding about what interventions are possible. For example:
• being cared for in a primary health care setting
• being referred to a specialist
• having useful information
• having the choice of self-help strategies
• learning new strategies to change harmful ATOD use
• learning how to attain and maintain change—relapse prevention.

Following assessment the nurse or midwife should identify whether the person can be assisted in the primary health care setting or needs to be referred and assisted to get to a specialist service. This should then be built into the treatment plan.
Knowing when to refer on

There are no hard and fast rules about whether people with ATOD problems should be cared for in the primary health care setting or within specialist services. The decision to refer on to other services/agencies will depend on the outcome of ATOD assessment, the person’s own preference, the severity of their problems, actual location, accessibility and availability of services, and family needs etc.

The following table provides a broad framework of some factors that may assist in deciding what may be the most appropriate choices of service.

Table 2.2: Factors which may assist in decisions regarding the most appropriate venue for care/treatment

<table>
<thead>
<tr>
<th>Factors</th>
<th>Primary care setting</th>
<th>Specialist services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug/alcohol history</td>
<td>• Occasional use</td>
<td>• Chaotic, poly drug/alcohol use</td>
</tr>
<tr>
<td></td>
<td>• Recreational drug/alcohol users</td>
<td>• Dependence &gt; than one year</td>
</tr>
<tr>
<td></td>
<td>• Lower levels of hazardous drug/alcohol consumption</td>
<td>• Methadone or buprenorphine assessment and therapy</td>
</tr>
<tr>
<td></td>
<td>• Dependence &lt; than one year</td>
<td>• Person’s request/choice</td>
</tr>
<tr>
<td>Complications</td>
<td>• Stable psychiatric conditions</td>
<td>• Unstable psychiatric condition</td>
</tr>
<tr>
<td></td>
<td>• Co-existing medical problems (e.g. diabetes, hypertension, infection, injury, HIV, HBV, HCV, acute illness, injury)</td>
<td>• Pregnant women at special risk</td>
</tr>
<tr>
<td></td>
<td>• History of chronic ATOD relapse or unsuccessful ATOD treatment episodes</td>
<td>• History of recent self harm</td>
</tr>
<tr>
<td></td>
<td>• History of poor ATOD treatment outcomes</td>
<td>• HIV or hepatitis C</td>
</tr>
<tr>
<td>Previous ATOD treatment</td>
<td>• No previous attempts to cease or reduce ATOD use</td>
<td>• History of poor ATOD treatment outcomes</td>
</tr>
<tr>
<td></td>
<td>• Strong motivation to undergo intervention including withdrawal management</td>
<td>• Poor home or family support system</td>
</tr>
<tr>
<td></td>
<td>• Willingness to access other appropriate services, e.g. social worker</td>
<td>• Multiple agency involvement</td>
</tr>
<tr>
<td></td>
<td>• Drug use already stabilised by specialist services or GP</td>
<td>• Undertaking current ATOD treatment, e.g. methadone, chronic pain management, co-management for mental health disorder</td>
</tr>
<tr>
<td></td>
<td>• Family/support network</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>• Employment/study commitments</td>
<td>• Child care and safety concerns</td>
</tr>
<tr>
<td></td>
<td>• Financial resources</td>
<td>• Homeless/unstable social circumstances</td>
</tr>
<tr>
<td></td>
<td>• Family responsibilities</td>
<td>• Poverty, unemployment, poor supports</td>
</tr>
<tr>
<td></td>
<td>• Family/social and effective supports in place</td>
<td>• Must be acceptable to culture and gender</td>
</tr>
<tr>
<td></td>
<td>• Being a volunteer, carer, parent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Not acceptable to go to specialist inpatient service for cultural/gender reasons</td>
<td></td>
</tr>
</tbody>
</table>

(Cohen & Schamroth 1989; Elander et al. 1994; Kemp & Orr 1996 in Miller 1997)
Note: Where the person has an ATOD problem and an unstable psychiatric illness, referral should be made to combined (collaborative) mental health and alcohol/drug specialist services.

Referral options may include:

- sobering-up unit (may be referred to as a non-medical detoxification centre) where intoxication is considered to be the only presenting factor (no risk of injury or potential medical crises) following careful assessment. This is voluntary and does not include medically supervised care
- withdrawal (detoxification) services. Some provide non-medical supervision and others medical supervision. The person’s needs must be ascertained. The person is referred according to their medical condition, intoxicated state or likely severity of withdrawal
- pharmacotherapy services such as methadone or buprenorphine maintenance programs for opioid-dependent people
- residential programs (such as a therapeutic community), usually accessed by people who have undergone a withdrawal (detoxification) program and aim to be alcohol or drug free. They may require psychiatric medications for comorbidity such as depression. This needs to be negotiated before transfer or referral
- community-based services for counselling, home detoxification, self-help groups including Alcoholics Anonymous, Narcotics Anonymous.

Contact your local alcohol and drug information service for advice and information on the range services available near you. (See Section 5: Reference, for contact details.)
2.3 Early and brief intervention

Introduction
The terms ‘brief intervention’ and ‘early intervention’ are often used interchangeably. However, there are two definitions that we use.

Early intervention is designed to intervene as early as possible in the history of a person’s risky or harmful ATOD use. It aims to prevent further risks, avoid or ameliorate any existing complications, and reduce any harms associated with that use.

Studies have shown that talking with people at a ‘critical moment’, such as when in hospital and at an early stage in their ATOD use, can be very effective in educating and preventing further problems and complications (Heather et al. 1996). Most importantly, early intervention is known to be effective when people understand that they can moderate their ATOD use rather than abstain, making the required behaviour change more acceptable and easier.

Brief intervention (BI) is defined by the short period of time needed to deliver the intervention and the context in which it is offered. BI can be applied in a variety of settings and provided by a range of health professionals (e.g. hospital and community based nurses and midwives, general practitioners, social workers, counsellors). BI includes strategies to inform and educate the person about their ATOD use and related risks.

BI employs techniques such as motivational interviewing in order to motivate the person to identify any ATOD problems, move towards change, set goals and undertake changes in their ATOD use. BI can be undertaken in as little as a few minutes for small problems to the provision of several planned sessions to assist the person through the process of change. BI can be supported by written information and self-help strategies.

Rationale for early intervention
Early intervention focuses on the early stages of harmful ATOD use when there is a risk of physical and psychosocial problems. The person may have been using ATOD in this way for a short length of time or a few years, but may not yet experience obvious health or social problems.

Rationale for brief intervention
Brief intervention can be very effective when applied at ‘critical moments’ in the person’s life, such as being admitted to hospital, possibly for an ATOD-related injury or illness, or another event that heightens their awareness and need for help—such as a family crisis or employment problem.

More intensive treatment for ATOD problems is still needed for individuals experiencing complex ATOD problems (e.g. heavy drinkers or drug users with a history of relapse following treatment and/or complicated withdrawal) and those with complex psychiatric comorbidity.

Brief intervention can be applied at any stage in the person’s ATOD-using career (not just in early stages of use), but is not as likely to be effective for those who experience chronic relapsing dependence or psychiatric comorbidity. This group usually requires supportive care and longer-term expert treatment.
BI may not be appropriate for:

- people showing signs and symptoms of serious physical illness arising from their ATOD use. In this instance, people need to be assessed by a physician
- people who are dependent on ATOD and need comprehensive general health and mental health screening and specialist assessment and treatment
- people who feel powerless over their situation or have concurrent health and social problems that require more intensive counselling, intervention and support than is possible in a brief intervention.

**General principles of early and brief intervention**

Early and brief interventions can be undertaken at any time during the nurse’s/midwife’s contact with the person.

Miller and Sanchez (in Miller & Rollnick 1991) described a number of factors that can make brief intervention effective, and these apply to early intervention as well. These are grouped under the acronym of ‘frames.’

- **Feedback**
  - providing honest information with the person regarding the results of the ATOD assessment

- **Responsibility**
  - promoting the notion that the person has responsibility for their own actions and has the ability to change their ATOD behaviour. Self-help manuals can assist in the process

- **Advice**
  - giving clear advice on the nature of the ATOD problem and encouraging the person to think about change and, if necessary, to seek further treatment that is appropriate to them

- **Menu**
  - providing the person with a menu of choices that will help them to resolve ATOD problem

- **Empathy**
  - being aware of the situation from the person’s perspective, ‘being in their shoes’

- **Self-efficacy**
  - emphasising that the person has strengths and abilities to achieve change in their ATOD use.

**Guidelines for brief intervention**

Brief intervention can take a number of forms and use a range of resources. It consists of the following:

- ATOD assessment/screening and feedback of outcomes
- identification of risk
- assessment of the person’s readiness to change
- motivational interviewing—to assess stage of change, create recognition of the need for change, and support the willingness to change
- matching BI strategy to the person’s needs and circumstances (e.g. provision of relevant, easy-to-understand information, self-help materials, pamphlets, video or audiotape, discussion)
- relevant and achievable goal setting
- skills development and strategies for meeting goals and improving self-efficacy (e.g. dealing with craving, building self-esteem to support new skills like controlled drinking or relapse prevention to maintain abstinence)
- follow up/monitoring
- referral.

(Allsop & Blacker 1995)
Details of each brief intervention are provided below.

**Procedure for brief intervention**
(See Section 2.2: Assessment.)
The procedure for brief intervention is:
1. assessment/screening
2. identification of the person at risk
3. assessment of their readiness to change
4. motivational interviewing
5. matching brief intervention strategy to the person’s needs and circumstances eg. provision of relevant, easy to understand information such as, self help materials, pamphlets, video or audio tape and discussion
6. goal setting
7. skills and strategies for self efficacy eg. building self esteem and skill development such as, controlled drinking strategies and relapse prevention skills
8. provision of information
9. follow-up monitoring
10. referral

1 **Assessment/Screening**
(See Section 2.2: Assessment)

2 **Identification of the person at risk**
(See Section 2.2: Assessment)

3 **Assessment of readiness to change**
The person’s responses to the issues will give an indication of the stage they are at in terms of wanting, and being able, to change their ATOD use. (See Table 2.3: ‘Matching stage of change to intervention strategy’ later in this section.).

It is useful to identify the person’s:
- concerns about their alcohol and other drug use
- their pattern of use (see Section 2.2: Assessment)
- influences on their use
- thinking about changing
- reasons for changing
- likes/dislikes about their ATOD use
- consequences of ATOD use
- risk factors of ATOD use
- supports for change, barriers to change, e.g. partner uses ATOD too
- stocktaking their current satisfaction with life.
(Miller & Rollnick 1991)

4 **Motivational interviewing**
Motivational interviewing is particularly suitable for people who are ambivalent about their ATOD behaviour. They may be pre-contemplating or contemplating change, and this technique can help to ‘move’ them further towards a commitment to change. It incorporates strategies that acknowledge the good aspects of ATOD use (from their
perspective), and can enhance their ability to weigh up the risks and benefits and thus create and maintain their desire for and resolution to commit to change.

Motivational interviewing therefore aims to motivate people towards change. If successful, the person will indicate that they are ready to consider change, and will now like to try and stop or reduce their harmful ATOD use. They will then need support in setting their goals for change and developing the skills and supports that will assist them to make change.

**Five principles of motivational interviewing**

Motivational interviewing rests upon five basic principles:

**Expression of empathy**

- Use skilful active and reflective listening.
- Know that ambivalence is normal—acceptance of this may facilitate change.
- Do not label the person (e.g. ‘alcoholic’, ‘drug addict’).

**Deployment of discrepancy**

- Build on the person’s self-awareness of the consequences of their ATOD use. By giving factual information when client raises their own concern about the consequences of their ATOD use (e.g. injury, arguments, lost money, ill-health, hangovers at work) can be powerful.
- Consequences that conflict with their other important and desired goals favour willingness for change.
- Offer advice and feedback in a way that expresses concern for their wishes and wellbeing can encourage a desire for change.

**Avoiding arguing**

- Arguments are counter-productive and will not help.
- Focusing on the person’s own concerns and perceptions is helpful.
- Resistance by the person is a signal to change your interview strategies.
- The person, not the counsellor, should present any arguments for change and identify the actions needed to solve issues or problems (see ‘Sample questions to evoke self motivational statements’ below).

**Rolling with resistance**

- Momentum (‘going with the conversation’) can be used to good advantage.
- The person’s perspectives can be shifted.
- New perspectives can be invited but not imposed.
- The clinician should not seek to ‘correct’ the person’s views.
- The person is the most valuable resource in finding solutions to their own problems.

**Supporting self-efficacy**

- A person’s own belief and hope in the possibility of change is important in developing and maintaining the motivation to change.
- Self-efficacy is not the same as self-esteem—it impacts on the person’s beliefs about their ability and potential to change.
- The person is responsible for choosing their own goals and carrying out their personal change.
- There is hope for people with ATOD problems to be helped through by the range of alternative options now available.

**Sample questions to evoke self-motivational statements**

Questions for problem recognition:

- What are the benefits of ATOD use for you (e.g. what is good about drinking)?
- What makes you think there might be an ATOD-related problem?
- What difficulties have you had in relation to your ATOD use?
- In what ways do you think you or other people might have been harmed by your use of ATOD?
- In what ways has this actually been a problem for you?
- Has your use of ATOD ever stopped you from doing something else you wanted to do?

Questions for level of concern:

- What is there about your ATOD use that you or other people might see concerning?
- What worries you about your ATOD use? What might happen to you?
- How do you feel about your current ATOD use?
- Does this concern you?
- How does this concern you?
- What do you think will happen if you do not change your ATOD use?

Questions regarding their intention to change:

- Are you thinking about changing your ATOD use at the moment?
- What might your reasons be to change your ATOD use?
- What would the benefits be from changing your ATOD use?
- How do you feel about this now?
- What else can we do to assist you with this issue?

5 Identifying stage of change—matching brief intervention strategy

Table 2.3: Matching stage of change to intervention strategy

<table>
<thead>
<tr>
<th>Stage</th>
<th>Matching intervention strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>- Harm reduction—e.g. Thiamine for heavy drinker, low alcohol beer when possible, provision of free condoms, provision of clean needles/syringes, swabs, water etc.</td>
</tr>
<tr>
<td>‘Happy user’, does not see any need for change</td>
<td>- Advice/information and education</td>
</tr>
<tr>
<td></td>
<td>- Invitation to return for further assistance</td>
</tr>
<tr>
<td>Contemplation</td>
<td>- Problem assessment</td>
</tr>
<tr>
<td>‘Thinking about change, ‘unhappy user, might want to change but not sure’</td>
<td>- Education/information re risks and harms</td>
</tr>
<tr>
<td></td>
<td>- Motivational interviewing</td>
</tr>
<tr>
<td></td>
<td>- Reinforcing concerns and need for change</td>
</tr>
<tr>
<td></td>
<td>- Harm reduction—e.g. Thiamine for heavy drinker, low alcohol beer when possible, provision of free condoms, provision of clean needles/syringes, swabs, water etc.</td>
</tr>
<tr>
<td></td>
<td>- Advice/information</td>
</tr>
<tr>
<td></td>
<td>- Invitation to return for further assistance</td>
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</tbody>
</table>
### Determination to change
**Ready to make decisions**
- Motivational interviewing
- Decision making
- Support for this decision to change
- Time and invitation to return for further assistance

### Action
**Ready to take action to change or has commenced action**
- Develop an action plan
- Problem solving/goal setting—practical and achievable
- Skills identification, development and practice
- Self-help manuals
- Feedback/support
- Practicing how to manage barriers to change

### Maintenance
**Has made change**
- Coping skills
- Self monitoring
- Relapse prevention
- Building self efficacy
- Skills rehearsal
- Support
- Information about dealing with risky situations

### Lapse and relapse
**Recommenced risky use—once off, or more sustained ATOD use following making changes**
- Support to return to goals if things go wrong
- Chance to debrief
- Problem solving
- Normalising lapse and relapse
- Information sharing
- Goal setting again
- Skills rehearsal again

(Adapted from Prochaska, Di Clemente & Norcross 1992)

### 6 Setting goals
Empower the person to set their own goals/choose from their options (e.g. reduction in use or cessation of ATOD use):
- Provide support and encouragement for them to achieve goals.
- Facilitate their action plan (e.g. follow-up appointment, referral).

### 7 Develop skills and strategies for self-efficacy
Empower the person to achieve their goals through provision of:
- support and encouragement, articulating their strengths to build self-efficacy
- culturally appropriate and easy-to-understand information/self-help materials
- skills and strategies for preventing and managing relapse, identifying and dealing with at-risk situations

### 8 Provide information
Education can be offered at a number of levels ranging from providing simple information to more in-depth education sessions. It is important to offer people health information including the risk of excessive drinking, unsafe medication or other drug use, and to discuss with them their options for better health.
There is a wide range of printed information and self-help booklets available in each state designed to assist people to make decisions about their ATOD use. There are also some resources specifically aimed at assisting women, youth, Indigenous people, and other groups. Call your local alcohol and drug information service listed in the back of this book.

Provision of ATOD information and other resources and having access to more intensive support if needed are essential aspects of helping people to reduce their harmful ATOD use and regain health and wellbeing. Our interventions always need to be matched with each person’s particular needs and their desire for change. The bottom line is always ensuring that a harm reduction strategy is in place, even if change is not yet possible or relapse occurs.

**Handy hints**

Preface suggestions with phrases such as, ‘This is what other people have found helpful …’, ‘You are the best judge about what will assist you’, ‘What do you think?’

Where appropriate, give information related to prevention of intoxication and accidental overdose.

**9 Follow-up monitoring**

The offer of follow-up indicates your concern for the person’s welfare and provides them with an opportunity for further support and skills development. There is some evidence suggesting that regular medical check-ups and feedback improve the effectiveness of brief intervention.

**10 Refer when needed**

Assist or facilitate the person to self-refer to the selected service for follow-up. Provide resources and practical help if needed, including offering a bridge by putting them in touch by telephone to talk to the receiving agency while they are still with you.

**Harm reduction strategies**

Nurses and midwives can advise people about using harm reduction strategies as part of the delivery of early or brief intervention. This is critical where the person does not wish to change their ATOD use and is still using in hazardous ways. Some strategies include advising them to:

- drink alcohol within low-risk levels
- drink low alcohol drinks when possible
- drink water or soft drinks in between drinks if bingeing
- use alcohol or drugs in a safe place with trusted people
- have a test dose (small amount) of illicit drugs to gauge the strength and likely effect before using the whole amount to avoid accidental overdose or a ‘dirty deal’ where the drug is contaminated with other chemicals of substances
- ask friends or partner to always call an ambulance if you become ill or overdose
- not mix different drugs as this increases the risk of overdose and death (e.g. alcohol and heroin, prescribed medication and illicit substances). People may use party drugs such as ecstasy and the drug may also contain caffeine, ephedrine, amphetamine or codeine, but the user is unaware that they have consumed more than one psychoactive drug. This places them at risk of severe/adverse effects
- maintain an otherwise healthy lifestyle—good diet, exercise, sleep etc.
- maintain non-alcoholic fluids while using ATODs
- not drive a car or boat or operate machinery, including household machines, when affected by ATOD
• not get into a car or boat with a driver who has been using alcohol or other drugs
• be informed about ATOD use by getting accurate information and accessing health education resources
• use safest possible route of administration—e.g. avoid injecting but if injecting, do not use other people’s needles/syringes, swabs, tourniquets/belts or any other injecting equipment
• use a condom if having sex.
(For more harm reduction strategies, see Section 3: Drug-specific information.)

**Relapse prevention strategies**

• positives and negatives and strategies to manage them/ reinforcement of reasons for change
• cues and triggers and strategies to manage them
• coping skills
• planning to avoid use/at risk situations
• refusal skills training
• managing cravings
• cognitive restructuring (eg positive thinking)
• behavioural self-management (if controlled use is a goal)
• preparing for relapse
• pharmacotherapies eg. Naltrexone, Campral

Figure 2.1: *Assessment and intervention*

![Assessment and intervention diagram]

(adapted by de Crespigny & Watkinson from NSW Health Department 2000)
(See Appendix 1, 1A, 1B, 2 and 2A: ATOD use assessment forms, for quantification of ATOD use and definitions of hazardous and harmful levels and Alcohol Brief Intervention.)


2.4 Managing intoxication

Introduction

Recognising the signs of intoxication and any risk of impending overdose from psychoactive drugs is essential in ensuring the immediate resolution of risks to the person. Once the immediate problems have resolved, there may be the opportunity to provide them with important information about safe ATOD use and harm reduction in the future through early intervention.

The use of more than one drug (polydrug use) is common. It is therefore important to identify and observe for the effects of more than one drug in the intoxicated person.

Rationale for intoxication management

Intoxication occurs from the direct pharmacological effect of the drug on the CNS.

Intoxication is dose-related and becomes more obvious as consumption and the blood level increases. Observable intoxication is mediated by the person’s neurologic tolerance whereby they will need a larger dose or quantity to feel (and show that they are) intoxicated. Nurses and midwives need to be able to correctly estimate and manage intoxication as it complicates general health problems and the safety and management of people, even when their intoxication is not life-threatening.

Intoxication can be dangerous because:

- It can mimic or mask serious illness and injuries.
- It can complicate other health problems.
- Psychoactive drugs affect mood, cognition, behaviour and physiological functioning.
- Alcohol and opioids are central nervous system depressants that suppress respiration, coughing reflex, gag reflex and cardiovascular function, thus inducing a variety of arrhythmias.
- Severe intoxication causes:
  - altered physical functions (e.g. depressed respiration, altered temperature regulation)
  - altered mental function (e.g. panic or paranoia resulting in accidental injuries or self-destructive behaviour)
  - acute poisoning
  - accidental overdose
  - death.

It is essential to pay attention to a person’s complaints of e.g. a sore head, blurred vision, or reports of a fall or injury no matter how intoxicated they seem. People who are aggressive or disruptive because they are intoxicated can risk their own safety and/or the safety of other people, staff, visitors. They may also have a head injury or metabolic dysfunction and must still receive appropriate medical and nursing assessment and treatment.

People who have no gag reflex must be intubated prior to insertion of a nasogastric tube. Thiamine 200mg should be administered parentally as a prophylaxis against Wernicke’s Encephalopathy due to Thiamine depletion because of excessive drinking.

Thiamine 200mg must always be given to heavy drinkers before any glucose/sugar drinks or intravenous therapy such as dextrose, to avoid precipitation of Wernicke’s Encephalopathy. This is best considered as a standing order for all drinkers at risk.
Narcan (naloxone) may also be prescribed for a person who is intoxicated with opiates even when used in combination with other drugs.

**General principles of intoxication management**

- Any intoxicated person is at risk of aspiration and asphyxiation due to vomiting at a time of diminishing consciousness, whether or not there are overt signs of injury.
- All intoxicated people are at risk of and should be monitored for poisoning and overdose.
- All intoxicated people must be kept under observation until their intoxication diminishes and they can safely manage their environment.
- All intoxicated people with a low blood alcohol/breath alcohol reading but whom appear grossly intoxicated must be assumed to have either consumed other drugs, sustained a head injury or have another severe illness.
- Thorough physical and mental status examinations need to be conducted to reveal the level of intoxication.
- If the intoxication does not diminish with falling serum alcohol/drug levels, the person must be assessed for other possible causes of their condition. People who appear intoxicated may be suffering other conditions.
- Treat intoxicated people with respect: speak slowly and simply, care for them in a quiet place if possible, give information clearly and protect them from accidents.
- Maintenance of the airway is of paramount importance to the semi-conscious or fully comatose person.
- People who have stabilised after being intoxicated should be further assessed for any possibility of withdrawal—early identification and intervention of withdrawal can prevent complications which may be life threatening (see withdrawal sections appropriate to the specific drug).
- Alcohol withdrawal can occur before a zero blood alcohol reading.
- Any person presenting with seizures should be assessed for alcohol withdrawal, benzodiazepine withdrawal or stimulant intoxication, as well as other possible causes. Withdrawal seizures must be treated according to best practice, with the person observed for at least four hours post seizure, using the Glasgow coma scale score (see Appendix 3).

**Identification of hazardous drug use**

A person’s physiological and behavioural reaction to a drug depends on the:

- characteristics of the individual (e.g. age, size, gender, health state, mood etc.)
- pharmacology of the drug/s used
- pharmacokinetics of drug/s used
- how much (dose) of the drug/s taken
- side effects or unwanted effects of the drug/s used
- the setting in which the drug/s used
- one drug is used in combination with other substances including medicines, inhalants, herbal preparations
- previous experiences with the drug/s used.
<table>
<thead>
<tr>
<th>Table 2.4: Symptoms &amp; effects of drugs</th>
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</thead>
<tbody>
<tr>
<td><strong>Symptoms of use</strong></td>
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<td>----------------------</td>
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<tr>
<td><strong>Alcohol</strong></td>
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<tr>
<td>Common street names:</td>
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<tr>
<td>grog, piss, booze,</td>
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<tr>
<td>sauce</td>
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<tr>
<td>• loss of inhibitions</td>
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<td>• argumentative</td>
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<td>• over-friendly</td>
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<td><strong>Solvents</strong></td>
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<td><strong>Cannabis</strong></td>
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<td>Drug Class</td>
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<tr>
<td>Benzodiazepines</td>
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<td>Heroin/ opioids</td>
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<td>Ecstasy</td>
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</tbody>
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| Cocaine | snow, coke | • energy rush | • extreme agitation | • straws for snorting | • lethargy |
|         |           | • heightened awareness | • paranoia/psychosis | • shiny surface (e.g. tin, mirror) | • fatigue |
|         |           | • confidence          | • drug induced hallucinations | • pipes | • panic |
|         |           | • chatty              | • nausea and vomiting | • needles and syringes | • paranoia |
|         |           | • affable             | • increased body temperature | • needle tracks | • depression, irritability |
|         |           | • agitated            | • irregular shallow rapid breathing | | • weight loss |
|         |           | • panic               | • tremors | | • delusions and violent behaviour |
|         |           | • enlarged pupils     | • heart pain | | • can lead to collapsed veins or skin ulcers at the injection site |
Symptoms of use | Symptoms: high doses | Possible signs | Adverse effects/outcomes
--- | --- | --- | ---
Cocaine cont. |  |  | • ulceration and permanent damage to mucosa of nasal passage if snorted

**Ketamine**  
Common street name: *Special K*  
* • intense hallucinations  
* • euphoria  
* • depersonalisation  
* • temporary paralysis  
* • straws  
* • needles and syringes  
* • cramps  
* • fatigue  
* • severe depression  
* • irritability  
* • vomiting  
* • heart failure  
* • violent reactions  
* • flashbacks similar to those experienced with LSD

(DASC 2002; Coyne & Wright 1997)

**Screening for alcohol and other drug use**  
The presence of a drug or its metabolites in a person’s blood or urine helps to corroborate the ATOD assessment findings. This is especially important in the following situations:  
• people who are unable to give a coherent history  
• people who cannot or do not wish to reveal their drug use  
• people with atypical reaction to drugs  
• people whose absorption, metabolic or excretory functions have been impaired by drug use or other diseases  
• people who have consumed unknown drugs and quantities of drugs (e.g. with drink-spiking).

Alcohol levels are measured by breath analysis or blood sample. Other drug use is usually measured by urine sample. Timeliness of urine sampling is important due to the short duration of possible detectability of some drugs.

**Table 2.5: Duration of detectable drugs in urine**  

<table>
<thead>
<tr>
<th>Substance</th>
<th>Duration of detectability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>12-24 hrs</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>48-72 hrs</td>
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<tr>
<td>Methamphetamine</td>
<td>48 hrs</td>
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<tr>
<td>Barbiturates</td>
<td></td>
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<tr>
<td>short-acting</td>
<td>24-72 hrs</td>
</tr>
<tr>
<td>long-acting</td>
<td>2-3 weeks</td>
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<tr>
<td>Substance</td>
<td>Duration</td>
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<td>--------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Up to 1-2 weeks</td>
</tr>
<tr>
<td>Cocaine</td>
<td>48-72 hrs</td>
</tr>
<tr>
<td></td>
<td>Chronic use— up to 4 weeks</td>
</tr>
<tr>
<td>Lysergic acid di-ethylamide (LSD)</td>
<td>Up to one week</td>
</tr>
<tr>
<td>Methadone</td>
<td>3-5 days</td>
</tr>
<tr>
<td>Opioids (codeine/morphine/heroin)</td>
<td>2-4 days</td>
</tr>
<tr>
<td>Cannabis (marijuana)</td>
<td>Infrequent user— up to 10 days</td>
</tr>
<tr>
<td></td>
<td>Chronic user 7-30 days or more</td>
</tr>
<tr>
<td>Propoxyphene</td>
<td>2-3 days</td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>Up to 2 weeks</td>
</tr>
</tbody>
</table>

(Institute of Medical & Veterinary Science 2002; Coyne & Wright 1997)

**Nursing guidelines—intoxication assessment**

1. Take an ATOD use history on admission (see Appendix 1A and 1B: Taking a drinking history). Ask about today’s use and time of last drink or drug dose. This must be recorded and reported to MO.
2. Measure breath alcohol if appropriate and record.
3. Observe vital signs (temperature, pulse, blood pressure, respiration).
4. Refer to the physical examination by the medical officer (including pupils; widely dilated or pinpointed, ataxia/gait, coordination, impaired reflexes, collapsed and unable to walk, etc.).
5. If an alcohol and other drug use history cannot be obtained from the person, try to determine the type of drug/s used, how much was used and when last used by asking another person accompanying the person. Always observe for signs of impending overdose or poisoning (see Section 2.5: Managing overdose.)
6. Observe for signs of drug use such as puncture marks, cellulitis, phlebitis, skin abscesses, nasal erosion, irritation or rash around nostrils, septum or mouth, evidence of rectal damage, dehydration, rapid weight loss.
7. Refer to the mental status examination which should assess the following:
   - any confusion
   - level of consciousness
   - poor attention span
   - orientation
   - memory
   - judgement—poor
   - mood (e.g. sudden changes)
   - behaviour (e.g. sudden changes)
   - speech
   - comprehension
   - paranoia
   - abnormality of perception (e.g. hallucinations)
   - decision making.
8. Consider conditions other than intoxication (e.g. head injury, acute infection, electrolyte imbalance, CVA, hypoglycemia, psychosis, severe liver disease etc.)
9. Vomiting, incontinence
10. Skin colour and condition (e.g. pale, sweaty, flushed)
11. Speech—faster, slower, slurred, unintelligible
12. Record observations.

The initial assessment of an intoxicated person at risk of overdose must take into account any factors that may lead to a suspicion of head injury:
- person tells you they are injured or in pain
- history of a fall, no matter how long ago or how minor (there may be no obvious signs of injury)
- visual disturbances
- headache
- irritability
- limb weakness
- personality change
- aggression
- moods swings
- diminishing response to stimuli.

If the assessment indicates that the person is intoxicated
1. Maintain airway and monitor signs frequently.
2. Continue monitoring the person’s physical and mental state.
3. Ensure the medical officer is aware of the person’s status.

Note: vomiting is likely to occur in the grossly intoxicated person. This can present a major problem in semiconscious or unconscious people.

Checking for causes other than intoxication
People who appear to be intoxicated may be experiencing conditions due to other causes. Intoxicated people often present with additional problems such as fractures, trauma, lacerations, other illnesses etc.

Nurses and midwives need to always consider and investigate the possibility of an underlying illness, using the following guidelines:
- If an apparently intoxicated person cannot easily walk, stand or get up from a chair, you must keep them for observation, regardless of the lack of obvious injury.
- Any person who presents as incoherent, disoriented or drowsy should be treated as having a head injury until proven otherwise.

The following conditions can mask or mimic signs of intoxication:
- infection
- semi-consciousness or coma
- respiratory disease, hypoxia
- head injury, subdural haematoma
- acute psychotic state (e.g. schizophrenia)
- diabetes (e.g. confusion due to hypoglycaemia or ketoacidosis)
- epilepsy (temporal lobe), post ictal
- drug toxicity (Dilantin, Digoxin) and/or side effects of other prescribed drugs
- meningitis
- early signs of cerebral vascular accident (CVA) or transient ischaemic attack (TIA)
- alcohol/drug withdrawal
- encephalopathy (Wernicke’s or hepatic) and other neurological disorders
• shock due to injuries
• hypothermia
• hyperthermia (e.g. risk of rhabdomyolosis).

Managing intoxication
Supportive care will most often prevent an intoxicated person from becoming upset or frightened and/or disrupting other people, staff and visitors.

Supportive care also plays a major role in the safe and effective management of people who are intoxicated, and their environment to prevent accidents and trauma while in your care.

What to do
• Approach the person in a quiet, consistent, friendly and respectful manner. Patronising and authoritarian attitudes may evoke anger and result in an aggressive response—this is a common response to threats to dignity and self-respect.
• If the person is accompanied by friends who are also intoxicated, ask them to wait outside the room.
• Provide the person with a seat in an uncluttered, quiet part of the room.
• The nurse must introduce him/herself, giving their name and role.
• Ask the client’s name. Orient the person and establish rapport, inform the person where they are and what is happening.
• Only ask specific questions about the presenting illness or injury.
• Elicit information—do not rely on the person to volunteer it. Ask sober family member or friend if available.
• When possible, postpone questions or procedures that antagonise the person.
• Give simple information/messages as required taking care to avoid information overload.
• Repeat information if necessary.
• When instructing the person or seeking their cooperation, give clear, concrete instructions. If necessary, repeat slowly. Also guide them to and from their destination, hand them things, etc.
• Reduce the possibility of accidents.
• When talking to the person:
  – use slow, distinct speech
  – if English is not their first language they may revert to their first language while intoxicated—they may need an interpreter
  – use short, simple sentences
  – avoid emotional topics and involved discussions
  – maintain eye contact if appropriate
  – use the person’s name, e.g. Mr …
  – adjust your pace to match the person’s.

The nurse needs to notify other staff that he/she is dealing with an intoxicated person and ensure safe procedures for managing challenging behaviours are enacted. Work with other staff to manage any aggression; ask other staff for support and debriefing after any incident.

Managing behaviours
Some specific ATOD-induced behavioural problems can be managed by using particular approaches as listed below.
Anxiety/agitation/panic

- Approach the person in a quiet, calm and confident manner.
- Stand beside them rather than front on and do not appear aggressive.
- Move and speak in an unhurried way.
- Minimise the number of staff attending to the person.
- Always explain who you are and what you are doing.
- Provide a quiet environment to reduce unnecessary CNS stimulation.
- Reassure the person frequently (e.g. ‘It won’t take much longer,’ ‘I am just going to do ... because ...’)
- Remain with the person to calm him or her down.
- Explain any actions or interventions needed no matter how simple (e.g. moving the pillow; taking TPR).
- Protect the person from accidental harm (e.g. do not leave them unattended on a barouche or bed without safeguards. Lower the bed as close to the floor as possible).
- Brief and frequent attendances will reassure them and prevent unnecessary agitation.

Confusion/disorientation

- Provide frequent reality orientation.
- Reduce amount of unnecessary equipment nearby.
- Reduce amount of unnecessary noise.
- Use/display some object familiar to the person (e.g. his or her own dressing gown, slippers).
- Ensure frequent supervision.
- Accompany the person to and from places (e.g. bathroom, lounge).
- Explain in simple terms what is happening.

Altered perception/hallucinations

- Explain their perceptual errors; tell them what is real (e.g. that the curtain does not have snakes on it).
- Create a simple, uncluttered environment.
- Provide care in well-lit surroundings to avoid perceptual ambiguities from poor light.
- Protect the person from harm.

Anger/aggression

- Use space for self-protection (e.g. ensure you have easy access to the open door; do not crowd the person; keep furniture between yourself and the person if feeling unsafe etc.).
- Keep own emotions in check. Speak in a calm, reassuring way. Do not raise your voice.
- Use the person’s proper name when speaking to them.
- Do not challenge or threaten the person by tone of voice, eyes or body language.
- Let the person air their feelings and acknowledge them.
- Work in pairs if you feel at risk.
- Determine the source of the person’s anger and if possible, remove it.
- Be flexible within reason.
- Be aware of workplace policies on managing aggression.
- Use available security measures or carry personal duress alarm.

Peer support/debriefing

At times staff feel stressed when dealing with people with ATOD problems and whose behaviour is difficult or threatening. Staff debriefing on the ward—either formal or informal—should be available as part of day to day practice. Referral to an employee
assistance program (EAP) may be needed for staff who are needing counselling and support away from the workplace.

**Brief intervention and relapse prevention**
(See Section 2.3: Early and brief intervention.)

**If a person refuses treatment**
If a person who is intoxicated or withdrawing from ATOD wants to leave the hospital and you do not think they are safe to leave, you need to exercise your duty of care to ensure the person’s safety and wellbeing. Refer to the policy and procedures manual of your health facility to determine the appropriate course of action. Consult MO and senior staff. Record all actions and note times.

For further information on intoxication, refer to Section 3: Drug-specific information.
2.5 Managing overdose

Introduction
Any person who presents as incoherent, disoriented or drowsy should be treated as having a cerebral event (head injury) until proven otherwise. Overdoses should be managed according to the individual policy of each hospital. (For information on overdose please go to individual drugs in Section 3: Drug-specific information.)

Overdose can be by accident or as a result of deliberate self-harm.

Remember:
▪ Acute poisoning and acute withdrawal can have common features.
▪ Those with a high alcohol tolerance may experience withdrawal while their blood alcohol concentration is still positive and above zero.
▪ Accidental overdose is a high risk when a person has used more than one depressant drug.
▪ Heavy drinkers may overdose from high intake of alcohol or having used other drugs with alcohol.
▪ Inexperienced drinkers (e.g. children and adolescents) can overdose from excessive doses of alcohol due to low tolerance.

Rationale for overdose management
Overdose occurs when a person has consumed a dose of a drug that alters the ability of the central nervous system to maintain respiration and other vital bodily functions. This can occur when more of the drug has been used in one dose than would usually be recommended as a safe therapeutic dose or as a high dose exceeding the person’s acquired CNS tolerance.

All people who present with decreasing or diminished level of consciousness must have careful and appropriate monitoring of all vital signs and neurological function. The Glasgow coma scale (see Appendix 3) and vital signs provide the best method of assessment. These observations must be done on arrival, after checking airway, breathing and circulation, and should be continued at a maximum of 15-minute intervals for at least four hours.

With the use of the Glasgow coma scale (GCS) and monitoring of vital signs, the nurse can quickly recognise any deterioration in the person’s condition and intervene at the earliest possible time.

If the condition rapidly deteriorates, usual nursing intervention is followed.

Nursing guidelines—overdose assessment

Monitoring possible progression of intoxication to overdose
Careful monitoring of the person enables early identification and intervention at risk of impending overdose.

Assessment
(See individual drugs in Section 3: Drug-specific information.)
To observe for progression to an overdose state, monitor the following:
▪ increasing agitation or sedation
▪ changing mental state—hallucinations, panic or deep depression
▪ abnormal pulse (irregular, below 60 or above 120 per minute)
• breathing difficulties
• decreasing levels of consciousness
• seizures
• increasing disorientation
• diminished response to stimuli.

Please note the need to:
• evaluate risk of self-harm
• remove any medicines, alcohol, other drugs or substances (e.g. solvents) that could be ingested by the person.

**Identify type of drug and dose**

For assistance with identification of the drug used check:
• MIMS
• Australian Drug Compendium
• poisons information service in your state
• medical staff or general practitioner
• pharmacist.

If a non-pharmaceutical drug has been used:
• check the label on container (e.g. aerosol can)
• ask the poisons information service in your state
• ask any relevant government agency (e.g. agriculture, mining)
• ask the manufacturer.

Collect urine sample (as soon as possible):
• to identify the type of drug used and any doubt as to actual ingestion of a drug/s
• to assess for qualitative estimates.

Collect blood sample:
• for presence of drug/s
• for blood alcohol level
• for serum drug levels.

Other concerns:
• history of ingestion of foreign substance
• medical history (e.g. epilepsy, diabetes).

**Identification of people at risk of overdose**

People in this category must be identified and assessed for need for:
• urgent urine screening
• specific antidotes
• haemodialysis.

Guide for ‘dangerous’ classification:
• unusual overdoses
• paracetamol
• unusual drug combinations
• overwhelming overdoses.
Significant overdoses of the following:
- ethyl or methyl alcohol
- tricyclic or tetracyclic antidepressants
- lithium
- glutethamide
- organophosphates
- salicylates
- quinine and quinidine
- iron salts
- heavy metals
- cyanide
- opiates/opioids.

Nursing management of overdose
A standard approach should be used for management of all overdose situations. Alcohol intoxicated people may have ingested other substances that may complicate and compromise their condition further. There may also be underlying pathology. All these factors must be considered.

Treatment of overdose should be initiated with the following guidelines as routine practice:
- Do not give food or fluids.
- Conditions. Be alert and manage the following conditions according to best practice:
  - slowing respiration
  - respiratory depression or failure
  - airway obstruction
  - bronchospasm
  - acidosis
  - aspiration
  - pulmonary or cerebral oedema
  - haemorrhagic conditions
  - hypoglycaemia
  - hyper/hypokalaemia
  - liver failure.
- Signs. Measure or observe the following and manage according to best practice:
  - hypotension
  - bradycardia/tachycardia/arrhythmias
  - hyperthermia or hypothermia
  - oliguria/anuria
  - seizures.
- Keep the person calm and quiet as excessive movement and activity may enhance rapid absorption of alcohol and other drugs.

Potentially lethal overdoses
People who have had a potentially lethal overdose must be identified and assessed as early as possible for any need for:
- urgent urine screening if and where possible
- specific antidotes
- haemodialysis.
Any person presenting with seizures should be assessed for alcohol withdrawal as well as other causes. The seizures must be treated according to best practice and the person observed for at least four hours after seizure, incorporating Glasgow coma scale (GCS) score.

**Brief intervention and relapse prevention**
(See Section 2.3: Early and brief intervention.)

Brief intervention (BI) may be undertaken once an acute overdose episode has fully resolved and the person is willing and able to discuss and comprehend the information being discussed. The focus should be on preventing any recurrence of another overdose situation.

**Unconscious people**

Head injuries, CVA, overdose and intoxication must all be taken into consideration when assessing all unconscious people. Thorough assessment, early recognition and intervention are vitally important.

Remember that treating people with respect is a priority and that seemingly unconscious people may be aware of what is being said.

Poisoning must be suspected in all people who present unconscious or with decreasing level of consciousness. The priority of care is as follows:

1. **Airway management**—clear airway (e.g. remove dentures if ill fitting, vomit).
   Position head (head tilt/jaw thrust position). Have suction available. In trauma, be aware of possible spinal injury.

2. **Breathing**—if clearing airway does not stimulate spontaneous respiration, commence manual ventilation with high flow oxygen and air viva with Guedel’s in situ.

3. **Circulation**—cannulation for blood sampling, drug access and fluid replacement may be required.

**Medical management**

Medical management may consist of the following:

- Administration of IV 100mg Thiamine to prevent Wernicke-Korsakoff’s syndrome in people determined to be at risk of Wernicke’s but are not withdrawing, before any dextrose loading (e.g. when used to treat hypoglycaemia) and naloxone for possible opioid ingestion may also be needed. (DASC 1996)

**Note:** Resuscitation equipment should be immediately available when Thiamine is given IV in the unlikely event of anaphylaxis. (Thomson et al, 2002, p. 514)

- intravenous or intramuscular naloxone 0.4 or 0.8 milligrams (mg) for heroin or other opioid overdose. A dose of 2mgs repeated at two-minute intervals up to a total of 10mgs may be required for buprenorphine overdose due to buprenorphine binding tightly with opioid receptors—higher doses of naloxone are needed to compete with this drug at the receptor site.

All people with a depressed or altered level of consciousness must have frequent regular monitoring of vital signs. This is best achieved by using the Glasgow coma scale in conjunction with vital signs including respirations, temperature, blood pressure and pulse.

In the unconscious person axillary temperature should be taken. An indwelling catheter should be inserted to monitor urine output. Collect urine for drug screen.
**Vomiting**

Presume that any person who is unresponsive has a full stomach. Suction should always be available; if not, place in coma position and monitor closely.

Electrocardiograph, x-rays, etc. can be done after basic observations and appropriate support are ensured.
Figure 2.2: Basic life support flow chart

Collapse
check response to touch and talk

conscious

- make comfortable
- observe: airway breathing circulation

unconscious

- turn victim on side
- turn face slightly downwards
- clear airway
- apply head tilt and jaw support/jaw thrust
- check for breathing

breathing

- leave on side in stable position
- observe: airway breathing circulation

not breathing

- turn victim on back
- give 5 full inflations within 10 seconds
- check for carotid pulse

pulse present

continue EAR

check carotid pulse and breathing after one minute and then at least every two minutes

pulse absent

begin CPR (EAR & ECC)

check carotid pulse and breathing after one minute and then at least every two minutes

EAR = Expired air resuscitation
ECC = External cardiac compression
CPR = Cardiopulmonary resuscitation
2.6 Managing withdrawal

Introduction
The severity of withdrawal symptoms is not clearly or directly related to the quantity of drugs previously consumed. When assessing for withdrawal and for the purpose of dose titration for clinical management, it is better to place greater weight on previous history and/or observable clinical signs rather than only on the subjective symptoms reported by the person.

Effective management of withdrawal in its early stages can reduce or prevent progression to complicated withdrawal that may be life-threatening due to accidental injury, dehydration, electrolyte imbalance, seizures, delirium tremens or the negative impact on other concurrent disorders including acute infection, renal disease or diabetes.

In the management of withdrawal, it is crucial to select the appropriate withdrawal scale as indicated by the person’s recent ATOD use history.

The management of particular withdrawal syndromes associated with specific ATODs is detailed in Section 3: Drug-specific information.

Rationale for withdrawal management
Withdrawal symptoms can range in severity from mildly uncomfortable to life-threatening. Some people withdraw from ATOD without the aid of medication and may only need support and encouragement. Others, especially those with a history of long-term harmful alcohol or benzodiazepine use, can experience serious withdrawal complications (e.g. benzodiazepine or alcohol withdrawal-induced seizures) and will require appropriate medication and nursing supervision.

It is best to assume that any person who has consumed alcohol and other drugs excessively on a daily basis over a significant period of time (weeks) can experience some withdrawal symptoms on ceasing or reducing their intake. Severity of withdrawal symptoms can differ depending on the person, the drug(s) used, duration of use, past experience of withdrawal, other psychological and physical conditions (e.g. nutrition, hydration) and acute or chronic illness. Drugs with short half-lives, such as alcohol or heroin, will give rise to withdrawal symptoms at an earlier phase after the last dose, and the symptoms will peak and fade faster than withdrawal syndromes associated with drugs with a long half-life such as diazepam or methadone.

General principles of withdrawal management
• The approach taken to managing withdrawal will depend on whether the person is specifically admitted to hospital or the clinic for their withdrawal management, or they incidentally experience withdrawal as a result of admission for another illness or injury. In either situation, it is always important to know if the person has a history of severe withdrawal, such as seizures or delirium tremens (DTs).
• Managing anxiety is essential to the effective management of any withdrawal state.
• The basis of all successful withdrawal management is a clear and accurate ATOD use assessment with immediate attention to last dose and time taken.
Nursing management of withdrawal focuses on these main areas:
- assessment and early recognition
- monitoring, documenting and reporting
- preventing withdrawal complications where possible
- minimising progression to severe withdrawal
- decreasing risks of any injury to self/others
- eliminating any risk of dehydration, electrolyte or nutritional imbalance
- reducing any risk of seizures
- identifying concurrent illness that masks/mimic or complicate withdrawal
- providing supportive care
- preparing for discharge after-care and referral as desired.

Nursing guidelines—withdrawal management

Assessment and early recognition of withdrawal
A withdrawal syndrome always develops progressively after cessation or rapid reduction in alcohol or other drug use. Therefore, history taking and assessment, ongoing monitoring, early recognition and prompt management of the initial (and milder) withdrawal state can prevent progression to more severe stages and complications.

The basis of all successful withdrawal management is a clear and accurate alcohol and other drug use assessment. If the assessment (see Section 2.2 Assessment) has not been completed accurately, withdrawal may not be anticipated and therefore managed effectively. A clear assessment will point to the possibility of withdrawal, allowing the nurse to plan the person’s care. For each of the following potential problem areas there are specific management goals and actions nurses need to take to achieve the goal. A consistent approach is very important. The following is a suggested nursing care plan for managing withdrawal.

Nursing care plan—minimising risk of severe withdrawal

**Nursing management goals:**
- prevent withdrawal complications
- identify any change in the persons clinical condition early
- if change occurs, provide rapid, appropriate interventions.

**Nursing actions:**
- assess, monitor and predict
- reassure and take a supportive approach
- monitor withdrawal symptoms, document observations based on validated withdrawal scale
- intervene during mild state of withdrawal (e.g. relaxation, reassurance, medications as prescribed)
- explain effects of withdrawal medication (e.g. diazepam) to the person
- administer medication strictly as prescribed and assess effectiveness (do not withhold medication unless complications arise)
- monitor and evaluate effectiveness of nursing interventions
- document and report outcomes
- provide self-help information for withdrawal period
- maintain hydration, nutrition, hygiene, physical safety.
Decrease risk of injury or self-destructive behaviour

*Nursing management goals:*
- allow the person to move freely if safe and able to do so
- maintain safety at all times
- maintain privacy and dignity.

*Nursing actions:*
- assess fine and gross motor coordination, stability and orientation
- assist with daily tasks for self-care where necessary
- help person to express his or her feelings, allow them to talk about their emotional experiences, concerns and issues
- maintain a well-lit, uncluttered environment
- ensure safety by removing dangerous objects (e.g. chairs, vases, heavy objects, razor blades, knives etc.) and assess for suicidal ideation—if this is indicated, facilitate a quick referral to the psychiatric team
- supervise adequately—the person may need to be restricted to a supervised area.

Eliminate risk of dehydration, electrolyte and nutritional imbalance

*Nursing management goals:*
- maintain adequate hydration
- maintain Thiamine and essential nutritional intake
- maintain body weight.

*Nursing actions:*
- ensure 100mg Thiamine IV given prior to any glucose/dextrose
- assess and record nutritional intake, fluid intake and output
- encourage and assist adequate fluid intake and nutrition
- administer other vitamins and fluids as ordered
- monitor blood pressure, temperature, pulse and respirations
- monitor any nausea or vomiting and administer anti-emetics as ordered
- monitor any tremor of hands, limbs, tongue.

Reduce potential for seizure

*Nursing management goals:*
- prevent seizures
- maintain safety.

*Nursing actions:*
- assess and monitor withdrawal status regularly
- observe best practice guidelines for seizure prophylaxis
- administer medication as ordered.

Identify presence of concurrent illness that mask or mimic withdrawal

*Nursing management goals:*
- exclude conditions that may mimic/mask withdrawal (e.g. hypoglycaemia)
- treat concurrent medical and psychological conditions as required.
**Nursing actions:**
- take adequate history
- monitor and respond to withdrawal state and concurrent condition
- follow procedures relating to other conditions including those detailed in managing intoxication (see Section 2.4 Managing intoxication).
- administer medications as ordered.

**Provide supportive care**

**Nursing management:**
- explain to the person what is happening and that you are there to look after them
- allay and lessen anxiety, agitation, confusion, disorientation, hallucinations, anger or fears of not having needs met, and maintain personal comfort
- encourage and support the person to complete their withdrawal episode.

**Nursing actions:**
- if showing signs of anxiety, agitation, panic:
  - approach in a calm, friendly and open manner
  - always introduce self
  - always explain any nursing actions required
  - spend time with the client to establish rapport
  - move and speak in unhurried way
  - provide support and encouragement
  - minimise the number of staff attending to the person
  - reinforce goals related to the admission
  - decrease stimulation by providing quiet and uncluttered environment
  - give the person the opportunity to discuss feelings/concerns
  - provide frequent reassurance
  - show interest/empathy in person’s welfare and health
  - remain with the person to calm him/her down
  - seek input regarding their comfort level and needs
  - explain any medical or nursing interventions
  - provide information on self-help strategies
  - protect from accidental harm (e.g. do not leave unattended on a trolley or bed without safeguards)
  - offer activities such as relaxation, warm bath, soft music.
- if showing signs of anger or aggression:
  - determine the source of anger
  - defuse the situation
  - let the person air their feelings, acknowledge them
  - address the person by their proper name
  - keep your own emotions in check, speak in a calm, reassuring way
  - use space to protect yourself
  - do not challenge or threaten by the tone of your voice, eyes or posture
  - be reasonably flexible, keep in mind own safety and that of others.
- if showing signs of confusion or disorientation:
  - confusion, disorientation, altered perception or hallucinations may indicate progression to severe withdrawal (associated particularly with alcohol withdrawal) or may signify another concurrent illness.
• if there is an emergence or exacerbation of these symptoms in a person who is not intoxicated, an urgent medical review is warranted:
  – provide information on place, time and day regularly to the person
  – offer reassurance
  – remove any unnecessary equipment, restrictive clothing, bed linen
  – use/display object(s) familiar to the person (e.g. their own slippers, dressing gown)
  – ensure safety by frequent supervision and safeguards such as padded cot sides, lower bed as far as possible
  – walk with the person to and from the bathroom, lounge, etc.

• if displaying altered perception hallucinations:
  – explain perceptual errors and provide reassurance
  – create a simple and uncluttered environment
  – nurse in well-lit/evenly lit surroundings to avoid perceptual ambiguities, take care with night lighting to avoid shadows
  – explain any procedures you need to do
  – protect from harm.

More detailed information about nursing management of withdrawal from ATOD may be obtained by phoning the local alcohol and drug information service (ADIS) in your state.

**Brief intervention and relapse prevention**
(See Section 2.3: Early and brief intervention.)

**Preparation for discharge follow-up and referral**

**Nursing management goal:**
• plan for discharge and ensure the person is aware of, and can choose from, the range of services/support available
• wherever appropriate involve the person’s family in their after care.

**Nursing actions:**
• effective management and support may influence a person’s successful completion of withdrawal and their decisions to engage in further interventions or activities to cease or reduce their ATOD use, and any harms associated with their use
• withdrawal may be an initial ‘milestone’ in encouraging the person to change their harmful ATOD use
• education about harmful ATOD use and withdrawal can support this change
• person needs to be encouraged to use self-management strategies (e.g. relaxation, sleep management, defocusing from craving to other activity) that were introduced in the acute phase of withdrawal. These may assist in alleviating any ongoing withdrawal symptoms and craving that can persist for weeks or months
• determining the person’s longer-term goals will guide the clinicians caring for them in what information might assist the person to make their choices relating to any future goals in reducing or ceasing their ATOD use. Their goal may be abstinence, methadone maintenance or controlled use
• providing the person with information about the services available to them following discharge, such as methadone (pharmacotherapy) maintenance, can assist them in achieving their goal, such as future abstinence through pharmacotherapy
• providing access to supportive counselling can assist the person with achieving their short and long-term goals
• assisting the person to engage with self-help and community-based groups, such as Alcohol Anonymous (AA) or Narcotics Anonymous (NA), who can provide free and accessible support for the person to achieve their goals and re-integrate into the
community. ALANON and ALATEEN are available for family members and young people.

- providing referral to residential rehabilitation programs that can assist the person to achieve abstinence
- providing the person with information and assistance to make follow-up appointments will help them to engage with services that can help them resolve their problems and achieve their goals for change.
Section 3

Drug-specific information
3.1 Alcohol

Introduction
Alcohol dependence can often be unrecognised, particularly when a person is admitted to hospital for surgery or other reasons. Withdrawal can lead to seizures, hallucinations and delirium tremens (DTs) that can be life-threatening.

Alcohol withdrawal symptoms can frequently be predicted, so it is important that nurses recognise the symptoms of withdrawal as well as assessing the possibility of the person developing alcohol withdrawal symptoms (Clancy 1997).

There is no single set of accepted definitions that can accurately describe the range of alcohol problems that exist and the level of dependence present (Mattick & Jarvis 1993).

The difficulty in finding an acceptable and understandable taxonomy means that we rely on three general groups: excessive consumption, abuse and dependence.

- **Excessive consumption** refers to alcohol consumption beyond the currently known ‘low risk’ levels as defined by the NHMRC Drinking Guidelines (2001). These drinkers do not necessarily suffer from complex problems or dependence.
- **Abuse and dependence** are diagnostic categories as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). (American Psychiatric Association 1994)

Alcohol misuse and dependence refer to patterns of alcohol use that cause clinically significant distress or health impairment (Degenhardt, Hall et al. 2000).

For more information please go to the following websites:
- The Treatment of Alcohol Problems: A Review of the Evidence
- Guidelines for the Treatment of Alcohol Problems

Levels of drinking
The NHMRC (2001) has categorised different alcohol problems according to the different levels of consumption and degree of possible short-term and long-term harm to health associated with that level of consumption. These are low, risky and high risk.

Definitions of risk:
- **Low-risk** levels define a level of drinking at which there is only minimal risk of harm and, for some, the likelihood of health benefits.
- **Risky** levels are those at which risk of harm is significantly increased beyond any possible benefits.
- **High-risk** drinking levels are those at which there is substantial risk of serious harm, and above which risk continues to increase rapidly.
- **Short-term** risk refers to the risk of harm in the short-term that is associated with given levels of drinking on a single day.
- **Long-term** risk refers to the level of risk associated with regular daily patterns of drinking defined by the total amount of alcohol typically consumed per week.
Table 3.1: **Level of risk of harm in the short term**

<table>
<thead>
<tr>
<th></th>
<th>Low risk (in standard drinks)</th>
<th>Risky (in standard drinks)</th>
<th>High risk (in standard drinks)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adult males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On any one day</td>
<td>Up to six on any one day, no more than three days per week</td>
<td>Seven to 10 on any one day</td>
<td>11 or more on any one day</td>
</tr>
<tr>
<td><strong>Adult females</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On any one day</td>
<td>Up to four on any one day, no more than three days a week</td>
<td>Five to six on any one day</td>
<td>Seven or more on any one day</td>
</tr>
</tbody>
</table>

(Adapted from Shand et al. 2002, pp. 5 & 6.)

(See Appendix 1: Taking a drinking history, for description of standard drinks.)

**Short or long-term risk from any alcohol consumption**

Alcohol consumption at even low-risk levels is not recommended for people who:

- have a condition made worse by drinking
- are on medication
- are under 18 years of age
- are pregnant
- are about to engage in activities involving risk or a degree of skill (e.g. driving, flying, water sports, skiing, operating machinery)
- are taking other substances that may adversely interact with alcohol.

(NH&MRC 2001)

**Potential critical situations**

**Thiamine, other vitamins and mineral supplements**

Thiamine is given to treat or prevent Wernicke-Korsakoff’s syndrome. The need for Thiamine treatment may be determined by blood test results that indicate Thiamine deficiency.

**Thiamine deficiency—Wernicke’s Encephalopathy**

Thiamine deficiency is common in people who drink heavily and is a major cause of Wernicke’s Encephalopathy. This is an acute condition associated with high-risk levels of alcohol use, or any condition that has caused poor nutritional status and its sequelae (e.g. malnutrition, anorexia or bowel disease). If the condition is not treated effectively and early, it can lead to permanent brain damage and memory loss. It can occur in heavy
drinkers (80gms a day for adult male and 60gms a day for adult female), whether young or older.

**Prevention of Wernicke’s in people determined to be at risk but who are not withdrawing**

At least one dose of Thiamine 100 milligrams should always be administered (intravenous or intramuscular) as a prophylaxis against the development of Wernicke’s Encephalopathy in all people who use alcohol in a harmful way. (Royal Adelaide Hospital, 2003, p. 36).

Before glucose loading 100mg IV/IM Thiamine should be given. **Check coagulation status before giving IM.** (Royal Adelaide Hospital, 2003, p. 36).

Resuscitation equipment should be immediately available when Thiamine is given IV, in the unlikely event of anaphylaxis. (Thomson et al, 2002, p. 514).

**Treatment of Wernicke’s**

This condition is preventable and can be reversible if recognised and treated with parenteral Thiamine.

Because a high carbohydrate load exacerbates Thiamine deficiency, administration of glucose or dextrose must be accompanied by oral or parenteral Thiamine 100mg. This is to be given before glucose/dextrose, or simultaneously if given IV.

Signs and symptoms of Wernicke’s Encephalopathy:
- ophthalmoplegia (reduced eye movements or nystagmus)
- neuropathy—pins and needles or loss of feeling in extremities
- ataxia—unsteady gait
- confusion—people may also have impairment of memory, concentration and judgement, confabulation and labile mood. These problems may coexist with both intoxication and withdrawal
- acute disorientation

**Thiamine treatment is based on changes in clinical signs and on Thiamine status. If there is any sign of Wernicke's Encephalopathy treatment of presumed Wernicke's should be commenced.**

At least 100mg Thiamine IV every 4 hours is given until clinical signs resolve. Larger doses of up to 1g Thiamine IV per day in divided doses may be required. A common Thiamine dose is 200mgs IV QID for 3 days, then medical clinical judgement of signs of improvement from administration of Thiamine. (Thomson et al, 2002, p. 514). If signs are improving continue dose until plateau of effect and then start oral Thiamine at same dose and taper down to 100mgs per day. Always check magnesium status since deficiency can impair Thiamine utilisation (personal communication Gaughwin, 2003).

Oral multivitamin and mineral supplement may be prescribed.

Any person who has alcohol related brain damage or an episode of Wernicke’s Encephalopathy should be maintained on Thiamine 100mg orally per day on a continuing basis.

**Alcoholic hallucinosis**

Alcohol hallucinosis is a cluster of psychotic symptoms that appear during or following a period of heavy alcohol use. **These are not due to acute intoxication alone and are not part of a withdrawal state.** The disorder is characterised by hallucinations (typically auditory, but often involving other senses), perceptual distortions (usually visual tactile, auditory), paranoid or other delusions, psychomotor disturbances, and abnormal affect
(ranging from intense fear to ecstasy). The sensorium is usually clear although some degree of clouding of consciousness may be present.

Supportive care is the major focus of intervention and includes withdrawal observations in order to identify and manage symptoms of the withdrawal syndrome that may emerge.

**Assessment and quantification**

The level of alcohol intake is an important determinant of:

- the likelihood of alcohol withdrawal and its subsequent severity
- whether the person may be using alcohol at a level known to cause long-term harm
- the early identification of likely problems will influence choices and effectiveness of nursing interventions.

**Assessment guidelines**

(See Appendix 1 and 1A: Taking a drinking history.)

(See Section 2.2: Assessment and Appendix 2 and 2A: AUDIT.)

An ATOD use history should contain the following information:

- type of alcohol and other drug
- frequency of use (of each drug)
- average daily intake (alcohol use should be measured in terms of standard drinks/grams per day)
- duration of use
- time and amount of last dose (of each drug)
- route of administration for drugs (e.g. heroin or amphetamines) other than alcohol—oral, injecting, snorting
- nutritional status
- concerns about use
- positives from use.

When taking a drinking history do not accept phrases such as ‘social drinker’ or ‘occasional drinker’. It is important to have exact information on the amount and frequency of use and to document this clearly in the case notes.

If the person does not give exact amounts initially, ask in a non-judgemental manner questions such as:

1. How many, how much, what is the size of the glass/bottle/cask?
2. How often would you have that amount?
3. How long have you been drinking at this level?
4. Do you do this every day?
Indicators of harmful alcohol use and risk of withdrawal

Intoxication:
- presenting with clinical signs suggesting alcohol and other drug use (e.g. decreased level of consciousness, unsteady gait, slurred speech)
- physical trauma possibly attributable to alcohol and other drug use (e.g. fractures, head injuries, other injuries resulting from violence, pedestrian or motor vehicle and boating accidents).

Regular risky or high-risk use:
- high-risk levels of alcohol consumption is more than seven standard drinks a day for men and more than five standard drinks a day for women
- admissions for possible alcohol or other drug-related conditions (e.g. liver disease, acute or chronic pancreatitis, oesophageal varices, hypertension, cancer).

Dependence:
- Alcohol Use Disorders Identification Test (AUDIT) score of more than 13. (See Appendix 2: Alcohol Use Disorders Identification Test—AUDIT)
- known history of previous alcohol withdrawal episode
- alcohol intake of 80gms or more per day for a healthy adult man, or 60gms or more a day for a healthy adult woman, on a regular basis over a period of 18 months but may be weeks in a person who has had previous withdrawal episodes. Debilitated or frail elderly people may experience dependence at levels less than 80gms/day for men and 60gms/day for women.

Early and brief intervention
(See Section 2.3: Early and brief intervention.)
(See Appendix 2A: Alcohol Brief Intervention based on AUDIT).

In this context, brief intervention relates to addressing risky consumption and avoidance of intoxication. For example:
- encourage/assist someone to reduce their drinking to low-risk levels to avoid the long-term harms associated with risky or harmful use
- encourage/assist someone to avoid the risks associated with intoxication or overdose.

Providing information about alcohol and its effects and suggesting strategies to reduce potential harms may be all that is needed for someone with a short history of risky alcohol consumption.

The strategies for reducing the long-term harms arising from risky or harmful alcohol consumption are:
- drink at or below low-risk drinking level with regular alcohol-free days
- consider not drinking (abstinence) if the person meets the National Health & Medical Research Council (NH&MRC 2001) criteria listed previously
- ensure good nutrition and healthy lifestyle
- take Thiamine 100mg orally per day.

Harm reduction strategies to assist in reducing intoxication and its associated harms are:
- set a limit (and stick to it) and count drinks
- try to have drinks in standard size glasses
- have a non-alcohol spacer (e.g. water or soft drink) between alcoholic drinks
- don’t drink and drive or use machinery
- eat before drinking
• plan ahead—catch a taxi, stay overnight, arrange a non-drinking driver, eat before you drink
• try low alcohol alternatives such as light beers and wines
• quench thirst on water or soft drinks
• avoid top-up drink—keep your own glass
• avoid drinking in rounds
• avoid salty snacks
• drink one sip at a time, and put the glass down in-between each sip.

Alcohol intoxication
Alcohol is a central nervous system depressant. It depresses respiration, coughing reflex, gag reflex and cardiovascular function, thus inducing various arrhythmias.

Signs of intoxication
• strong smell of alcohol
• altered mood, behaviour and cognition (e.g. loss of inhibition, depression, disorientation, confusion, relaxation, euphoria)
• analgesic and anaesthetic effects—no/minimal pain despite obvious injury or illness
• ataxia
• slurred or incoherent speech
• inappropriate behaviour/emotive responses
• altered consciousness
• positive breath/blood alcohol reading.
Alcohol intoxication may be a potentially lethal condition. Just as with other drugs, people can overdose on alcohol.
(See Section 2.4: Managing intoxication and Section 2.5: Managing overdose.)

Alcohol overdose
Clinical signs:
• strong smell of alcohol
• stupor or coma
• cold and clammy skin
• lowered body temperature
• lowered blood pressure
• slow and noisy respiration
• accelerated heart rate or bradycardia
• positive breath alcohol reading.
(See Section 2.4: Managing intoxication and Section 2.5: Managing overdose.)

Alcohol withdrawal
Alcohol withdrawal can start six to 12 hours after the last drink and is not necessarily related to a negative blood alcohol reading.
The severity of alcohol withdrawal ranges from mild to moderate to severe.
Severe alcohol withdrawal is potentially life-threatening. The most important thing is to anticipate that it may occur, or to suspect it when an unexplained acute organic brain syndrome is detected.
When withdrawal is accompanied by profound disorientation, confusion and hallucinations, it is known as delirium tremens (DTs). This is a medical emergency.
Early recognition and correct management of the initial, milder stages of withdrawal is crucial in prevention of its progression into the severe, life-threatening stages. Seizures can occur at any time during withdrawal, but usually occur within the first 48 hours.

Hallucinations occur in approximately 25% of people experiencing withdrawal. They are usually visual or tactile (typically insects crawling over the body) and occasionally auditory. They can be unpleasant, quite frightening and cause severe anxiety. They can be associated with complications (e.g. DTs).

Delirium tremens (DTs) is a life-threatening disorder (20% result in death) and is considered a medical emergency. The person must be admitted to an intensive care unit (Hulse, White & Cape 2002).

**Alcohol withdrawal, observation and monitoring**
Please see Appendix 4, 4A and 4B for exemplars of an alcohol withdrawal observation scale, based on the CIWA-Ar. These are useful as monitoring tools only—they do not diagnose alcohol withdrawal.

**Alcohol withdrawal—Index for suspicion**
So as to judge the potential for alcohol withdrawal the following Index of Suspicion provides a guide. If the person has:

- a history of heavy drinking or alcohol dependence and is it less than 10 days since they last consumed alcohol
- had a regular daily intake of 80 grams of more alcohol (eight drinks, men) or 60 grams (six drinks, women) for several months, or possibly weeks
- regularly taken smaller amounts of alcohol in conjunction with other central nervous system (CNS) depressants, e.g. Benzodiazepines
- had previous episodes of alcohol withdrawal
- experienced previous alcohol withdrawal seizures or other serious symptoms
- a current admission for an alcohol-related reason
- a previous history of an alcohol-related condition (e.g. alcoholic hepatitis, alcoholic cardiomyopathy, pancreatitis, oesophageal varices, liver disease)
- a physical appearance indicating harmful alcohol use, e.g. facial vascularisation, reddened eyes, signs of liver disease (e.g. ascites, jaundice), muscle wasting, spider naevi, palmar erythema, previous injuries
- recent pathology results showing raised serum Gamma Glutamyl Transpeptidase (GGT) and/or raised mean cell volume (MCV)
- displayed or reported symptoms such as hypertension, anxiety, sleep disturbance, agitation, tremor, sweating, nausea/vomiting or early morning retching, possibly due to alcohol withdrawal

**Onset of withdrawal**
Due to falling blood alcohol levels the early signs of withdrawal usually appear between 6-24 hours after the last intake/drink of alcohol. Symptoms may emerge before the breath alcohol reading reaches zero, e.g. at 0.1 Blood Alcohol level (BAL).

**Features of mild withdrawal**
Signs and symptoms may occur within 24 hours and subside 48 hours after stopping or substantially reducing alcohol intake. These include:

- mild rise in temperature, e.g. 37°C
- mild anxiety
• slight tremor
• mild sweating
• nausea
• vomiting
• mild dehydration
• headaches
• mild hypertension
• tachycardia
• dyspepsia
• malaise
• insomnia.

Features of moderate withdrawal
Signs and symptoms may occur within 24 hours and subside 72 hours after stopping or substantially reducing alcohol intake. These include:
• mild rise in temperature, e.g. 37°C
• moderate anxiety (will respond to reassurance)
• hyperventilation and panic attacks
• dehydration
• moderate sweating
• restlessness/agitation
• diarrhoea
• dyspepsia
• anorexia
• headache
• mild to moderate hypertension (diastolic reading of 100-110mmHg)
• insomnia/nightmares
• nausea and vomiting
• mild tremor
• weakness.

Features of severe withdrawal
Signs and symptoms may occur within 24 hours or may be delayed until 48 hours or more after stopping or substantially reducing alcohol intake. Further delays in onset may be caused by administration of other central nervous system (CNS) depressants, e.g. opioid analgesia or anaesthetics. The usual course of withdrawal is five days, but can be up to 14 days.
• acute anxiety (may or may not respond to reassurance)
• hyperventilation and panic
• agitation
• convulsions/seizures
• dehydration
• excessive sweating
• nausea
• vomiting
• diarrhoea
• disorientation/confusion (for time and place)
• fever
• hallucinations (auditory, tactile or visual)
• hypersensitivity to stimulation
• moderate to severe hypertension (danger sign is a diastolic pressure greater than 120mmHg), or hypotension
• tachycardia
• marked tremor
• withdrawal seizures, any seizure can be life threatening and are preventable in people with a known history through a diazepam-loading regime.

Figure 3.1: Progress of alcohol withdrawal from time of last drink

Features of Complicated Alcohol Withdrawal:
• Onset seizures (6-48 hours +)
• Onset disorientation (48 + hours)
• Onset confusion (48 + hours)
• Onset hallucinations (48 + hours)
• Onset delirium tremors (2-6 days after last drink)

The presence and severity of each of these symptoms varies with the level of severity of withdrawal. Presence of concomitant illness, infection, injury or other physical trauma, and recent surgery increases the likelihood of complicated alcohol withdrawal.

Delirium tremens (DTs)
Delirium tremens (‘the DTs’) is the most severe form of alcohol withdrawal syndrome, and is a medical emergency. It usually develops two to five days after cessation or significantly reducing alcohol consumption, but may take seven days to appear (Hulse, White & Cape 2002). The usual course is three days, but can be up to 14 days.
Symptoms

- exaggerated features of simple alcohol withdrawal, e.g. CIWA-Ar (Sullivan 1989)
  Alcohol Withdrawal Score (AWS) score increases later in withdrawal syndrome.
- autonomic instability (e.g. fluctuations in blood pressure or pulse may be hypertensive and tachycardic), disturbance of fluid balance and electrolytes, hyperthermia and sweating
- extreme agitation restlessness or disturbed behaviour—this may be to the extent where the person needs restraint or to be detained under the Mental Health Act for their protection
- gross tremor
- confusion and disorientation
- paranoid ideation, typically of delusional intensity
- hallucinations affecting any of the senses, but typically visual (highly coloured, animal form).

A simple alcohol withdrawal syndrome may not precede delirium tremens. Dehydration, infection, arrhythmias, hypotension, renal failure and pneumonia may be precipitating factors. Delerium tremens may result in death in 20% of cases. If treated, the mortality rate reduces to less than 5%.

Effective management should include

- 100mg Thiamine IV before any glucose/dextrose loading
- Thiamine regime as for people at risk of Wernicke’s, e.g. Thiamine 100mgs IM TDS for three days then oral 100mgs per day for approximately one week. Oral multivitamin and mineral supplements daily during withdrawal period
- effective sedation
- intravenous fluids
- treatment of intercurrent conditions.

Some people may have lingering cognitive dysfunction (may recover in 4-12 weeks).

If accompanied by Wernicke’s Encephalopathy, higher doses of Thiamine may be required. Cognitive dysfunction may be permanent.

See Thiamine regime for treatment of Wernicke’s.

Monitoring alcohol withdrawal

Alcohol withdrawal scale (AWS)

Always record the time of the last alcoholic drink, and the blood or breath alcohol reading at the time of admission so as to more accurately diagnose any risk of withdrawal and its likely time of onset, and/or polydrug overdose or concurrent illness or injury.

The most systematic and useful way to measure the severity of withdrawal is to use a withdrawal scale. This provides a baseline against which changes in withdrawal severity may be measured over time thus avoiding both under and overdosing with benzodiazepines and other symptomatic medications for alcohol withdrawal syndromes. There has been considerable debate about the application of withdrawal scales.

The Clinical Institute Withdrawal Assessment for Alcohol—Revised Version (CIWA-Ar) is recommended for best practice and provided in this document in two exemplars (see Appendix 4, 4A and 4B).

Note: The withdrawal scale does not diagnose withdrawal, but merely guides in the identification of symptoms indicative of severity of an already diagnosed withdrawal syndrome.
The nurse should re-evaluate the person’s symptoms to ensure that it is alcohol withdrawal and not another condition being observed, particularly if the person does not respond well to standard alcohol withdrawal treatment.

**Clinical Institute Withdrawal Assessment for Alcohol—revised version (CIWA-Ar)**

The CIWA-Ar (see Appendix 4, 4A and 4B) is a 10-item scale that several studies have shown is a valid, reliable and sensitive instrument for assessing the clinical course of alcohol withdrawal.

This scale allows a quantitative rating (from 0-7 with a maximum possible score of 67) of the following components of withdrawal:

1. nausea and vomiting
2. tremor
3. paroxysmal sweats
4. anxiety
5. agitation
6. tactile disturbances
7. auditory disturbances
8. visual disturbances
9. headache and fullness in head
10. orientation and clouding of sensorium.

Early onset of alcohol withdrawal may be indicated by a slight rise in temperature (37°C) in a patient who does not have an infection.

It is therefore useful to include the TPR and BP assessment on the same form as the CIWA-Ar in the hospital setting to allow concurrent monitoring of health status, identifying other problems through objective clinical signs, and/or early signs of the onset of alcohol withdrawal.

**Use of CIWA-Ar in the Emergency Department**

- Monitor the person hourly for at least four hours using the CIWA-Ar.
- Contact the medical officer for assessment if:
  - the CIWA-Ar total score reaches 8
  - the alcohol score increases by at least 5 points over this four hour period, or
  - you are concerned.

**Use of CIWA-Ar for hospitalised people:**

- monitor hourly if the alcohol withdrawal score is greater than 20
- 2 hourly if score is 8-20
- 4 hourly if score is less than 8, for three days
- if score fails to settle with the prescribed diazepam or rises above 15, the doctor should be notified.

Specialist medical advice is needed if the withdrawal score is greater than 25.
**Pharmacological treatment**

The medical officer may prescribe pharmacological treatment to prevent and combat acute withdrawal symptoms, without over-sedating the person. The most commonly prescribed pharmacological treatment for alcohol withdrawal is diazepam because it is long acting, there is cross-tolerance with alcohol and it has anti-convulsant properties.

Further clinical advice about alcohol withdrawal and recommended medication regimes can be obtained from your local Alcohol and Drug Information Service (ADIS). See ‘References’ at the back of these guidelines. Diazepam regimes should not be commenced until the breath/blood alcohol level (BAL) reading is down to 0.1% or less.

**Potential hazards**

- Benzodiazepine over sedation.
- Dose of diazepam is inadequate to control withdrawal symptoms.

**Alcohol withdrawal regimes**

1. **Mild withdrawal predicted**

- no other likely medical condition that may complicate or mimic withdrawal
- no history of withdrawal seizure
- daily alcohol intake less than 80 grams (60 grams in women)
- daily alcohol intake greater than 80 grams (60 grams in women) and the person is under 30 years old
- history of previous mild withdrawal syndrome.

Where a person is admitted for a purpose other than alcohol withdrawal management, e.g. surgery, injury, medical condition and their management does not preclude the use of sedation with diazepam. In this instance the protocol based on withdrawal symptom severity may be the preferred regime. This could be due to a number of factors, e.g. also receiving opioid pain relief, minor head injury and neurological observations are required during early phase of admission.

Protocol for mild alcohol withdrawal may be suitable in the general hospital setting or where alcohol withdrawal is complicating another condition, e.g. surgical procedures (and where intercurrent illness does not preclude diazepam).

- Diazepam 5-10 milligrams (mg) orally, four times a day as necessary (qid) (prn) should be prescribed to cover mild agitation in the event of a low alcohol withdrawal score.

In addition:

- Prescribe diazepam 20 milligrams (mg) 2 hourly to commence if Alcohol Withdrawal Score (AWS) rises to between 8-25 until AWS falls to <8. Maximum dose 120mg over 24 hours.
- If more is required a medical officer should first review the person.
- Diazepam may be recommenced if AWS score rises to >8. Diazepam should be withheld if client shows signs of benzodiazepine toxicity.
- More intensive nursing care will be required for a person whose AWS >20.

**Thiamine regime for people not considered at risk of Wernicke’s**

100mgs Thiamine orally per day

Oral multivitamin and mineral supplement may be prescribed during withdrawal period.
2. Significant alcohol withdrawal predicted

- no history of withdrawal seizures
- daily alcohol intake greater than 80gms (60 grams women) and the person is aged over 30 years
- past history of severe withdrawal
- person under the age of 30 years or drinking less than 80gms (60 grams women) per day with a past history of severe withdrawal
- the person is debilitated, elderly and/or frail
- the person has a concurrent medical condition, e.g. diabetes, renal or liver disease, serious injury or infection

Protocol for loading regime (when significant withdrawal is predicted).

Use of diazepam

- Loading with diazepam is commenced according to weight:
  
  Less than (<) 75kg 20mg 2 hourly for 3 doses (i.e. 60mg total)
  
  75-90kg 20mg 2 hourly for 4 doses (i.e. 80mg total)
  
  More than (>) 90kg 20mg 2 hourly for 5 doses (i.e. 100mg total)

Diazepam should also be administered as per the AWS score to commence if the AWS score is greater than (>) 10 after loading dose is completed.

- Diazepam 5-10mg orally, four times a day as necessary (qid) (prn) may also be prescribed to cover mild agitation in the event of a low AWS score. This commences the day after diazepam loading.
- Temazepam 10-20mg at night (nocte) as necessary (prn) may also be prescribed for night sedation for three nights (not to commence until the day after diazepam loading).

Thiamine regime—moderate—severe withdrawal considered at risk of Wernicke’s

Thiamine 100mgs IM TDS for 3 days then oral 100mgs per day for approximately one week. Check coagulation status before IM injection.

Oral multivitamin and mineral supplement may be prescribed during withdrawal period.

3. History of alcohol withdrawal seizures

- Any seizure must be taken seriously and investigated for causes.
- People with a past history of alcohol withdrawal seizures should receive diazepam loading (as in 2. above).
- If person’s weight is more than 75kg an additional 15mg dose may be needed for the first day.
- If the AWS score is greater than 10 after the loading dose is completed, the dosing regimen (as in 1. above) should be instituted. Thereafter all people requiring seizure prophylaxis should receive 10mg diazepam twice a day for two days, followed by 5mg twice a day (BD) for one day.

Note: Seizure prophylaxis should not be withheld because a client is asleep.

The dose may be delayed slightly if this is clinically appropriate, but it is important to ensure that the full amount is given.
Note: In either seizure prophylaxis or weight related loading, diazepam should only be withheld if signs of benzodiazepine intoxication are present; short periods of sleep are allowable.

Thiamine regime—As per regime—significant withdrawal predicted.

Symptomatic medications
Symptomatic medication relief may be needed for nausea/vomiting, headache or gastrointestinal upset.

Any symptomatic medications, should be prescribed as usual, e.g.

- Paracetamol: 500mg-1 gram oral 4-6 hourly as necessary.
- Metoclopramide: 10mg oral/or intramuscular, three times a day as necessary.

Clinical judgement
Clinical judgment will be required when there is combined alcohol and benzodiazepine withdrawal. A benzodiazepine reduction regime is often more appropriate (with superimposed alcohol withdrawal regime in the event of a withdrawal scale score rising to more than 15 using CIWA-Ar Score).

Alcohol withdrawal management where diazepam sedation is contra-indicated.
A Diazepam regime may be contraindicated in the following:

Acute or chronic liver disease
- The advice of a specialist physician is necessary.
- It is essential to determine that the person is in withdrawal and not hepatic Encephalopathy as injudicious sedation is dangerous.
- The dose of the sedative needs to be lower than for people who have normal liver function.
- Ozapam may be preferable to diazepam because it has a shorter half life and it has no active metabolites (15mg oxazepam = 5mg diazepam).
- Consider seeking specialist dietary advice.

Chronic airflow limitation
- The advice of a specialist physician is necessary.
- Respiratory failure. Sedating benzodiazepines are not the drug of choice for Chronic Obstructive Airway Disease (COAD).
- An oxazepam regime may be the choice in this instance.

No oral intake
- Consult specialist physician.
- Give 5mg diazepam intravenously (IV), repeated up to half hourly. If more frequent doses are required, this is a medical emergency and specialist advice should be sought.

Use of Haloperidol
- Haloperidol may be required in addition to diazepam to control symptoms of alcohol withdrawal, especially when psychotic symptoms such as hallucinations or paranoid ideation (particularly if acted upon with aggression) are pronounced.
- Doses of 2.5-5 milligrams (mg) three times per day (tds) orally or parenterally, and prn doses up to a total of 40mg per day may be required.
- Benztropine should be prescribed at doses of 0.5-2 milligrams (mg) as necessary prn to a maximum of 6mg daily for dystonic reactions, which are characterised by opisthotonos (usually extension of the neck), oculogyric crisis (eyes upward) or other unusual dystonia including abnormal tongue movements.
People receiving other CNS depressants (e.g. Opioids)
- Monitor oxygen saturation 1-2 hourly. Dose of diazepam may need to be reduced.

Situations requiring specialist consultation
As a general guide, refer to Intensive Care Unit (ICU) Registrar if:
- oxygen saturation is being checked and is < 94% on air
- respiratory rate less than 8 or more than 25 breaths per minute
- person not easily rousable to other’s speech
- the person has delirium tremens
- person has other medical problems that may cloud conscious state, e.g. neurosurgical condition
- other medical conditions that make administration of sedatives dangerous, e.g. chronic obstructive airways disease, hepatic failure, receiving opioids
- a person whose withdrawal syndrome is difficult to manage and is requiring higher than usual doses of diazepam may be better managed in a high dependency/intensive care environment. It is well recognised that at times (although rarely), intubation and ventilation may be required to control their withdrawal syndrome.

Nursing management of alcohol withdrawal (see Section 2.6: Managing withdrawal).
Note: There is no place for the prescription or provision of alcoholic beverages in the treatment of alcohol withdrawal.

Nutrition and hydration
Monitor and maintain fluid balance. Electrolytes may be monitored as a component of medical management including magnesium. Fluids need to be encouraged as dehydration from sweating, nausea, vomiting and diarrhoea may cause an exacerbation of the withdrawal syndrome.
Appetite may vary—encourage healthy diet where there is loss of appetite due to nausea or vomiting and encourage regular light food intake. When clients are likely to be nutritionally compromised or have liver disease, specialist dietary advice may be required. Nutritional planning needs to include consideration of special sensitivity to avoid iatrogenic complications, to treat deficiencies, prevent illnesses caused by the long-term effects of alcohol and/or to treat the complications of alcohol dependence (Lieber 1992).

Intercurrent illness
People with concurrent illness may score high on the Alcohol Withdrawal Scale (AWS) for reasons other than alcohol withdrawal. Sedative medication should not be given until a diagnosis of alcohol withdrawal is confirmed and the effects of concurrent illness have been assessed.

Maternal and neonatal care
Alcohol use during pregnancy
- The National Health & Medical Research Council (NH&MRC 2001) recommends that women who are pregnant consider abstaining from alcohol, although there is no current evidence of harm arising from the consumption of one standard drink in 24 hours.
- Alcohol intoxication, where there are high peak levels of alcohol in the blood stream may adversely affect the foetus.
• ‘An average of two or more standard drinks (20 grams or more) a day has been linked with low birth weight, behavioural and learning difficulties, and an increased risk of spontaneous abortion’. (Dore 2002, p. 299).

• Possible complications include miscarriages, stillbirth and premature birth.

• Alcohol intoxication can place the pregnant woman at risk of injury and other harms.

• Foetal effects are dose-related, where there is a mild decrease in cognitive functioning to foetal alcohol effects, or foetal alcohol syndrome (FAS) at the severest end of the scale.

• FAS is characterised by intellectual disability, poor coordination and motor skills, defects of the face, heart and bones, and slow physical growth before and after the birth.

**Alcohol use and breastfeeding**

• The NH&MRC (2001) advises that ‘women should not drink alcohol prior to breast-feeding as alcohol passes into breast milk. Even relatively low level-drinking may reduce the amount of milk and can cause irritability, poor feeding, and sleep disturbances in the infant’. (Dore 2002, p. 304).

• Intoxication may also place the baby and mother at risk of harms from, e.g. injuries from falls.

• The blood alcohol level in breast milk is the same as the mother’s blood alcohol level and is transferred to the infant as it suckles. Therefore alcohol use while breastfeeding is not recommended.

• If a woman wishes to drink alcohol during lactation, the effect on breast milk will be minimised if a small amount of alcohol only (e.g. one standard drink) is consumed at least 2-4 hours prior to the next feed, or immediately following a feed.

Specialists in ATOD use and pregnancy can assist in the care of women (who drink at harmful levels) during their pregnancy and delivery. They can also assist in care of the mother and infant after delivery. Monitoring and managing for withdrawal during and immediately after delivery may be necessary.
3.2 Opioids (opiates)

Introduction

Opioids (opiates) are a class of substances with morphine-like effects that can be reversed by the specific antagonist naloxone. Some opioids are semisynthetic chemical derivatives of morphine (such as heroin) and others are fully synthetic (such as pethidine and methadone). They share a common core structure that allows them to interact with opioid receptors (Young et al. 2002, p. 79).

Opioids have a depressant effect on the central nervous system. They decrease the spontaneous activity of neurones, producing drowsiness, mood changes and mental clouding. However, they also have features quite distinct from the sedative-hypnotics. They are powerful analgesics and suppress reflex cough and diarrhoea.

Prolonged opioid use results in tolerance and lowering of pain threshold, therefore apparently mild pain may be perceived as more severe. This may be inadvertently interpreted as drug-seeking behaviour rather than inadequately relieved pain.

It is illegal for medical practitioners to prescribe Schedule 8 drugs for dependence-related indications (e.g. treatment of opioid withdrawal syndrome), therefore the use of medications must particularly focus on symptomatic treatment except where people are receiving methadone from an authorised prescriber.

Unlike alcohol withdrawal, the syndrome associated with the cessation of opioid use is not likely to be life-threatening. However, the symptoms can cause the person undergoing withdrawal considerable discomfort and may lead to resumption of use to avoid or abate the symptoms, early discharge and thus poor intervention outcomes.

A person’s ability to make clear, responsible decisions may be markedly affected. This needs to be taken into account in terms of management decisions and further referrals.

The major focus of intervention is to minimise the risks (e.g. overdose and other harms including blood-borne viruses such as hepatitis B and C or HIV) that are associated with injecting drug use.

Equally important is to provide support and encourage the person to accept a referral for ongoing interventions whether this be aimed at abstinence or a pharmacotherapy maintenance (e.g. buprenorphine, methadone).

Injecting drug misuse carries the greatest risk of infection, particularly when equipment is shared. Dirty and unhygienic injecting habits can result in local or systemic infections and poor injecting technique can cause venous or arterial thrombosis. Some drug misusers inject subcutaneously (‘skin-popping’) and some intramuscularly, but the most favoured route is intravenous with the associated increased risk of overdose (Department of Health, Welsh Office et al. 1999).
Table 3.3 **Opioid conversion**
Duration of action and equivalent to methadone strength of common opioids

<table>
<thead>
<tr>
<th>Drug</th>
<th>Duration of action* (hours)</th>
<th>Strength/dose</th>
<th>Methadone equivalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>2-3</td>
<td>pure 10mg street 100mg</td>
<td>10mg 10-50mg</td>
</tr>
<tr>
<td>Morphine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– oral</td>
<td>2-3 (controlled release 12-24)</td>
<td>100mg – oral 10mg – injected</td>
<td>30mg 10mg</td>
</tr>
<tr>
<td>– injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pethidine</td>
<td>2-3</td>
<td>100mg oral/injected</td>
<td>10mg</td>
</tr>
<tr>
<td>Morphine</td>
<td>2-3</td>
<td>100mg oral/injected</td>
<td>10mg</td>
</tr>
<tr>
<td>– oral</td>
<td>2-3</td>
<td>100mg oral/injected</td>
<td>10mg</td>
</tr>
<tr>
<td>– injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxycodone</td>
<td>3-4 (controlled release 12-24)</td>
<td>oral 20mg rectal 30mg</td>
<td>10-15mg 5-10mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– rectal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pentazocine**</td>
<td>3-5</td>
<td>oral 50mg injected 60mg</td>
<td>3-4mg 5.10mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buprenorphine**</td>
<td>6-8 (single dose) 24-48 (maintenance)</td>
<td>200 micrograms (mcg)-sub-lingual 2mg 16mg 300mcg – injected</td>
<td>5mg 10mg 30mg 10mg</td>
</tr>
<tr>
<td>– sub-lingual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>2-4</td>
<td>8mg – oral 2mg – injected</td>
<td>10mg 7.5-10mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td>0.5-2 (injected)</td>
<td>200mcg</td>
<td>5-10mg</td>
</tr>
<tr>
<td>– injected/transdermal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dextromoramide</td>
<td>2-3</td>
<td>5mg</td>
<td>5-10mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dextropro-poxyphene</td>
<td>4-6</td>
<td>32.5mg 100mg</td>
<td>2mg 6mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td>3-4</td>
<td>oral 30mg injection 30mg</td>
<td>1.5-2mg 2-3mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– injected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>3-4</td>
<td>oral 30mg</td>
<td>2-3mg</td>
</tr>
<tr>
<td>– oral</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Department of Health, Welsh Office et al. 1999.)

* most opioids are shorter-acting than methadone, so **total daily dose** probably gives a better indication of methadone equivalence

** partial agonists—non-linear relationship between dose and opioid effect (i.e. increasing buprenorphine dose does not require equivalent increases in methadone dose—very difficult to be specific about equivalent doses)
Assessment and quantification
(See Section 2.2: Assessment.)

Interviewing people who use illicit drugs
When eliciting the drug use history, especially in the case of illicit drugs, people should hear concern, not criticism, in the nurse’s voice. Within the health care setting drug use is not a moral issue; it is a health issue.

▪ Be clear and straightforward about who you are, what you can do, what you need to know and why.
▪ Speak directly to the person’s concerns.
▪ Try to hear what the person wants and what the person is worried about.
▪ Show concern about the person’s drug-using behaviour without rejecting the person.
▪ Be prepared to explain why you seek information.
▪ Avoid implying judgement.
▪ Note inconsistencies and ask for their clarification.
▪ If your question angers the person, do not persist—rephrase it or ask it later.

Seek information related to the following:
▪ Record the frequency, quantity, date and time of last use, type of opioid used, duration of use and route of administration.
▪ Quantification of illicit drugs is difficult because they are usually ‘cut’ with other ingredients as well as the drug and assessed in either the dollar cost of the drug or its weight in street grams. Record how much the person spends each day on the drug, how long they have been using the drug, and ask about the route of administration (e.g. snorting or injecting).
▪ Pregnancy:
  – record daily pattern and quantify (as above)
  – record risk-taking behaviours (e.g. needle or equipment sharing, unsafe sex, driving under the influence)
  – other medical problems or hepatitis/liver disease, head injury, mental health, systemic disease.
  – other drug use including tobacco, alcohol, medicines.
▪ Information about a person’s drug use may also be gathered from the following sources:
  – history (interviewing the person or accompanying persons if the person is unable to answer questions)
  – data obtained through inspection/assessment of physical and mental status
  – blood test results (liver function tests, hepatitis B screening, hepatitis C and HIV screening) with informed consent along with pre- and post-test counselling
  – presence of a drug or its metabolites in urine or blood.
▪ Recognise the psychosocial aspects. (Many heroin users participate in a social group with distinctive norms and beliefs leading to discomfort in many conventional settings and wariness of stigmatisation. They may have difficulty adjusting to a drug-free lifestyle.)
▪ Physical status. Examples of harms arising from drug use are listed below. Many of them are due to the route of administration or accidental injuries during intoxication. It is important to record the following:
  – past overdose
  – puncture marks
  – cellulitis
- phlebitis
- skin abscesses
- bacterial endocarditis
- septicemia
- HIV infection
- hepatitis B or C
- dental disease
- drug side effects (e.g. constipation).

- Signs of intoxication, overdose or withdrawal.

**Early and brief intervention**
(See Section 2.3: Early and brief intervention.)

**Harm reduction**
There are many individual items of advice on alcohol and other drug use that can be given. Advice on harm reduction should be a high priority. Advice may include:

- Do not take more than one drug.
- Always use new needles and syringes with small bore to protect skin and vein integrity.
- Do not share injecting equipment (i.e. needles, tourniquets, syringes, spoons, filters or water for mixing drugs) due to the risks of blood-borne viruses infection.
- Avoid getting too hot when using drugs such as ecstasy.
- Mix powders with sterile water and filtering solution before injecting.
- Avoid using alone.
- Socialise with people who do not use drugs.
- Find alternative non-drug-orientated activities.
- Seek professional support and counselling.
- Acquire some basic training in resuscitation methods in the event of a drug-using friend collapsing.
- Always wash hands before and after injecting self or someone else and when handling injecting equipment including tourniquets, swabs.
- Take care to rotate injecting sites to avoid tissue and vein damage.
- Always inject into a vein.
- Avoid injecting into neck, groin, breast, feet and hand veins.
- Avoid injecting into infected areas.
- Do not inject into swollen limbs even if veins appear to be distended.
- Consider alternative routes of use (e.g. swallowing or smoking).
- Use safer and hygienic injecting practices to prevent vein damage, arterial thrombosis and local or systemic infections.
- Get quality information about using clean needle/syringe services programs and their availability.
- Safely dispose of all used injecting equipment.
- Use of safer injecting practices and vein care needs to be re-affirmed by nurses when it is noted that the person is taking care in this regard.

**Overdose prevention**
Advice about preventing overdose is also important harm reduction information. People should be given the following advice:

- Never use drugs alone.
- Do not use opioids (e.g. heroin and morphine) with other drugs, especially central nervous system depressants such as benzodiazepines and/or alcohol.
• Buy heroin from a regular, trusted dealer in order to be more certain of its strength—try a small ‘test’ dose before using.
• If using after a break from heroin/opioid use, tolerance will be low—use less than you used to in order to test tolerance and reduce the risk of overdose.

Opioid intoxication

Effects of opioids
• drowsiness ‘nodding off’
• analgesia
• euphoria
• tranquillity
• miosis
• constipation
• orthostatic hypotension
• respiratory depression
• decreased level of consciousness
• in rare cases: delirium
(See Section 2.4: Managing intoxication.)

Caution: Monitor the person closely as intoxication can rapidly progress to overdose depending on the type of opioid and route of administration.

Opioid overdose

Accidental overdose is not uncommon and may be due to:
• varying dose and increased purity of illicit supplies
• reduction in tolerance after period of abstinence (e.g. release from prison, discharge from rehabilitation or hospital)
• mixing drugs (particularly injecting benzodiazepine, cocaine) and/or alcohol
• leakage from poorly wrapped drugs that have been ingested (body stuffers and packers)
• being a novice opioid-injecting drug user.

Signs of overdose:
• slow respiration
• subnormal temperature
• miosis
• cyanosis
• weak pulse
• difficult to rouse, decreased level of consciousness
• bradycardia
• muscle twitching
• possible pulmonary oedema.

Pharmacological/medical management

Note: Maintenance of airway and breathing are most important in overdose management—follow cardiopulmonary resuscitation (CPR) protocol.
• Narcan (naloxone), an opioid antagonist, is used as a reversal agent and will reverse the effect of opioid overdoses. People who were previously sedated may become agitated, aggressive and difficult to manage due to sudden precipitated withdrawal syndrome.
- Naloxone is short-acting. In the case of methadone overdoses, the naloxone may wear off and the person can become sedated again.
- Naloxone should always be given in the case of respiratory depression.

(Clancy 1997)

Naloxone hydrochloride (naloxone) is available as 1 millilitre (ml) ampoules of 400 micrograms and as Min-I-Jet containing 2mg in 5ml.

A dose at 0.8-2mg by intravenous injection should be administered, repeated at intervals of two to three minutes to a maximum of 10mg. If respiratory function does not improve, other diagnostic options such as other drug intoxication or other organic causes of loss of consciousness, including hypoglycaemia, should be considered.

The subcutaneous or intramuscular injection route should be used if an intravenous route is not accessible. The same regime should be employed as for intravenous use, but the clinician should expect a slower response.

Naloxone is short-acting, and repeated injections or intravenous infusion may be needed if a longer-acting opiate such as methadone or buprenorphine has been taken. Naloxone can be given as a continuous intravenous infusion of 2mg diluted in a 500ml intravenous solution titrated at a rate determined by the clinical response.

The effects of methadone or buprenorphine overdose can persist for up to 72 hours, even in circumstances where people have been resuscitated. Depending on the magnitude of the overdose, they should be observed for a period of up to 72 hours. For high dose intoxication, naloxone infusion should be considered (Department of Health, Welsh Office et al. 1999). Because of the longer half-life of methadone compared with heroin or morphine (methadone = 24-48 hours), people who overdose from methadone and who are subsequently treated with naloxone, may seem to recover initially but can relapse into respiratory depression and coma if not adequately monitored and treated.

Opioid withdrawal

Onset and duration of withdrawal syndrome

Knowledge of the half-life of each opioid drug (e.g. heroin vs methadone) and the likely time of onset of withdrawal symptoms following the last dose, assists in predicting, identifying and effectively managing withdrawal symptoms.

Table 3.4 Objective and subjective symptoms of opioid withdrawal

<table>
<thead>
<tr>
<th>Objective symptoms</th>
<th>Subjective symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>lacrimation</td>
<td>restlessness</td>
</tr>
<tr>
<td>rhinorrhoea</td>
<td>anxiety</td>
</tr>
<tr>
<td>yawning</td>
<td>muscle twitches</td>
</tr>
<tr>
<td>sweating</td>
<td>nausea and vomiting</td>
</tr>
<tr>
<td>piloerection</td>
<td>abdominal cramps</td>
</tr>
<tr>
<td>hot and cold flushes</td>
<td>muscle and joint aches</td>
</tr>
<tr>
<td>mydriasis</td>
<td>craving</td>
</tr>
<tr>
<td>tremor</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.5: Times of appearance of withdrawal syndrome in dependent opioid users

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Time after last dose symptoms appear (hours)</th>
<th>Duration of withdrawal syndrome (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin/morphine</td>
<td>6-12 hours</td>
<td>5-7 days</td>
</tr>
<tr>
<td>Pethidine</td>
<td>3-4 hours</td>
<td>4-5 days</td>
</tr>
<tr>
<td>Methadone</td>
<td>24-48 hours</td>
<td>10-21 days</td>
</tr>
<tr>
<td>Kapanol/MS MS Contin (if intravenous)</td>
<td>8-24 hours</td>
<td>7-10 days</td>
</tr>
<tr>
<td>Codeine orally</td>
<td>8-24 hours</td>
<td>5-10 days</td>
</tr>
</tbody>
</table>


Opioid withdrawal syndrome can start as soon as four hours after the last dose and is manifested as a marked drive to use the drug (Young et al. 2002, p. 85).

Opioid withdrawal is the characteristic group of symptoms (syndrome) that occurs due to recent cessation or reduction in daily prolonged use of an opioid drug.

- People who use opioids continuously can experience a moderate to severe but not life-threatening withdrawal syndrome.
- Withdrawal from heroin can begin 6 to 12 hours after the last dose and lasts for about four to 10 days. Methadone has a longer half-life than heroin. Withdrawal from methadone has a later onset, starting 24 to 48 hours after the last dose and lasting from 10 to 20 or more days.

Moderate to severe withdrawal can occur after doses of more than 100mg morphine per day for 30 days; mild withdrawal can occur after even shorter periods of administration.

**Heroin** (diacetylmorphine) is rapidly metabolised to morphine. Pharmaceutical heroin is equipotent with morphine but street heroin is of variable purity (current information from seizures suggests up to 70%) with additives (adulterants) making up the weight. Onset of withdrawal is 6-12 hours after the last dose and usual duration is five to seven days.

**Methadone** has a much longer half-life than morphine (24-48 or more hours with chronic dosing), consequently onset of withdrawal is 24-48 hours after last dose with a duration of 5-21 days.
Special considerations

Polydrug dependence: Withdrawal from each drug group may need to be addressed and consideration should be given to admission and management. It may be necessary to institute a benzodiazepine reduction regime in addition to the symptomatic medications. In these circumstances advice should be sought from a specialist ATOD medical officer or a alcohol and drug information service.

Pre-existing medical condition: If this is likely to be exacerbated by withdrawal, admission and management is indicated.

Pregnancy: Opioid withdrawal should not be undertaken during pregnancy due to the high risk to the viability of the foetus. Methadone maintenance followed by gradual withdrawal/reduction may be a more appropriate option. Advice should be sought from a specialist ATOD medical officer regarding the best management options for pregnant women.

Use of opioid containing preparations (e.g. Panadeine Forte, Digesic): Codeine/other opioids may not be prescribed for the purposes of dependence. In addition, many of these preparations have significant paracetamol content which if taken in sufficient quantities is hepatotoxic.

Post-withdrawal phase: May last two weeks to three months, characterised by low frustration tolerance and mood swings. The person is likely to experience ongoing symptoms over this timeframe. Assist the person to develop coping strategies and encourage participation in exercise (acupuncture may have a role through similar effects on endorphins). A supportive, positive and understanding home environment is very helpful in assisting people through this phase. Provide reassurance that symptoms will lessen over time.
Blood-borne virus infection/testing: Discussion of issues related to hepatitis C, B and C and HIV should be undertaken for all people who are or have been injecting drug users. Hepatitis C infection is common in injecting drug-users, even where injecting was ceased some years previously and sharing of needles has not occurred. Testing (with effective pre-test education and post-test counselling) should be offered to all people who consider being tested for a blood-borne disease. They should be offered hepatitis B vaccination if found to not be immune (DASC 1999).

**Signs and symptoms of opiate withdrawal**

- drug-seeking behaviour
- hot and cold flushes
- joint pain
- abdominal cramps
- anorexia
- muscle aches
- restlessness
- insomnia
- nausea and vomiting
- diarrhoea
- mydriasis
- gooseflesh (piloerection)
- lacrimation
- rhinorrhea
- perspiration
- yawning
- tachycardia
- tremor
- hypertension

This withdrawal syndrome can be very uncomfortable and distressing, but not life-threatening unless there is a severe underlying disease. People may have a low tolerance to pain due to the effect of long-term opiate use and this needs to be acknowledged and treated effectively.

Major complications:

- anxiety and agitation
- low tolerance to discomfort and dysphoria
- drug-seeking behaviour (through requests for medication or attempts to self-medicate)
- muscle cramps
- abdominal cramps
- insomnia.

**Nursing management**

(See Section 2.6: Managing withdrawal.)

**Nursing observations**

(See Appendix 6: Objective Opiate Withdrawal Assessment Scale—OOWS—and Appendix 6A: Subjective Opiate Withdrawal Assessment Scale —SOWS.)

- Provide self-help information (e.g. ‘Getting through heroin withdrawal’).
- Nursing observations should be undertaken four hourly or more frequently if required.
- Create a supportive environment—provide reassurance and encouragement.
• Provide information to counter negative expectations (e.g. around stigma and fear withdrawal symptoms).
• Provide the prescribed pharmacotherapies and explain their effects and expected impact on withdrawal symptoms.
• Drug-seeking behaviour can be a consequence of anxiety and/or inadequate pharmacological and nursing management of withdrawal symptoms. Ensuring adequate assessment of withdrawal symptoms, timely administration of medication and the offer of alternatives to medication such as hot baths and massage for muscle cramps, teach relaxation activities (e.g. reading, watching television, playing cards) to direct attention from withdrawal symptoms.

It is important to involve the person in their assessment of the severity of their withdrawal symptoms by administering the Subjective Opiate Withdrawal Assessment Scale (SOWS) in addition to nursing observations Objective Opiate Withdrawal Scale (OOWS). Considering the person’s self-report in the efficacy of symptom relief can assist in reducing the person’s anxiety regarding being under-medicated.

People’s requests for medication can inappropriately be dismissed as drug-seeking behaviour. It is important and more helpful to identify this as the person having a need that is not being met, and asking about their concerns and how you can be of help. Where the person is making an unreasonable or illegal request explain why the request cannot be met and offer options that are attainable.

In some instances a contract management plan may need to be developed with the client by the clinical team to define the boundaries and set behavioural limits for them while in the treatment setting.

**Pharmacological treatment**
The medical officer may prescribe one or two pharmacological options for opioid withdrawal. These are:

- **Buprenorphine**
- **Clonidine**

**Buprenorphine**
Evidence indicates that buprenorphine is the drug of choice for a significant number of people undergoing opioid withdrawal symptoms.
Its trade name is ‘Subutex’—buprenorphine 8mg, 2mg and 0.4mg tablets.
As a partial agonist, buprenorphine can offer advantages over methadone tapering because withdrawal distress may be less intense, and there are often fewer side effects than experienced with adjunct medication such as clonidine. There can be problems with precipitated withdrawal with initial doses due to its partial agonist properties (Young et al. 2002, p. 89).

Buprenorphine is an opioid used either as a pain reliever or as a substitute for drugs such as morphine, heroin or methadone, or to medicate someone undergoing opiate withdrawal. As a partial agonist (sometimes called ‘mixed agonist/antagonist’) it cannot produce the same level of opioid effects as heroin or methadone. It also means that overdose may be less of a problem.

Buprenorphine binds very tightly to opioid receptors and can displace other opioids. Consequently commencing someone who is opioid dependent on buprenorphine may precipitate withdrawal.
First doses should be delayed for at least six hours after heroin and 24 hours after methadone with buprenorphine not being administered until withdrawal is evident. Dose titration may be required in the event of worsening withdrawal symptoms (Young et al. 2002, p. 89).

Buprenorphine blood levels peak at about 90 minutes after sublingual absorption, with the onset of clinical effects at 30-60 minutes and peak clinical effects at one to four hours. Duration of effect is eight to 12 hours at low dose (e.g. less than 4mg) but at higher doses (greater than 8mg per day) effects may last 24-72 hours because of the strong receptor binding. The therapeutic effect lasts from one to two days. It is eliminated mainly by hepatic metabolism.

The role of buprenorphine in treating opioid withdrawal is to reduce symptoms and craving, but not necessarily remove all symptoms or intoxicate the person. It is important that people understand that high doses can result in increased rebound withdrawal, prolonged duration of symptoms and increased side effects. Ongoing cravings are not necessarily an indication of inadequate doses, and may relate to other cues to resume drug use, such as the other people they are with or sighting needles and syringes. However, too low a dose can result in unnecessary withdrawal symptoms and the person ceasing treatment early.

For most people withdrawal from buprenorphine is not as uncomfortable as it is from heroin or methadone. Most withdrawal symptoms will begin one to three days after the last dose.

**Use of buprenorphine**

It is supplied as sublingual tablets that dissolve under the tongue in about five minutes, with the drug being absorbed through the lining of the mouth into the bloodstream. Crushing the tablets does not seem to have much impact on absorption, but lessens the likelihood of the person giving the drug to others or selling it on the black market. If it is swallowed, most of the drug will be metabolised by the liver before reaching the general circulation.

**Contraindications**

Buprenorphine should not be taken by people who:
- are allergic to buprenorphine
- are breastfeeding (it may reduce milk production, also it does get into breast milk and so may affect the baby)
- have severe liver or kidney problems
- have serious breathing problems
- are children under 16 years
- are intoxicated with alcohol or in alcohol withdrawal.

**Precautions**

- heavy alcohol drinkers
- taking any other drugs
- pregnant or are trying to get pregnant (it is probably safe but this has not been yet been adequately tested). There may also be a neonatal withdrawal syndrome—probably not as bad as with methadone.

**Use caution if using other drugs**

- benzodiazepines
- alcohol
- antidepressants (especially monoamine oxidase inhibitors)
- any other central nervous system depressants.
Side effects
- drowsiness, especially if taken with alcohol
- constipation
- headaches
- insomnia
- nausea and vomiting
- fainting and dizziness (orthostatic hypotension)
- sweating
- respiratory depression
- hallucinations.

There is a possibility that it may cause hepatic necrosis and hepatitis with jaundice. Liver function tests should be performed at regular intervals for those people receiving long-term buprenorphine (that is of more than two months duration).

Using buprenorphine in opioid withdrawal—suggested dosing protocol

Hospital setting
Buprenorphine is well suited to this application as it alleviates symptoms of withdrawal without significantly prolonging the duration of symptoms. There should be some ability to tailor doses to degree of withdrawal as assessed by the Objective Opiate Withdrawal Scale (OOWS) and/or Subjective Opiate Withdrawal Scale (SOWS). Buprenorphine should not be commenced until objective withdrawal is present (OOWS greater than four) to reduce likelihood of precipitating worse withdrawal.

Table 3.6 Daily buprenorphine dose

<table>
<thead>
<tr>
<th>Day</th>
<th>Buprenorphine sublingual tablet regime</th>
<th>Total daily dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4mg at onset of withdrawal and additional 2-4mg as necessary (more than four hours later)</td>
<td>4-8mg</td>
</tr>
<tr>
<td>2</td>
<td>4mg in the morning, additional 2-4mg evening dose as necessary</td>
<td>4-8mg</td>
</tr>
<tr>
<td>3</td>
<td>4mg in the morning, additional 2mg evening dose as necessary</td>
<td>4-6mg</td>
</tr>
<tr>
<td>4</td>
<td>2mg in the morning, if necessary, 2mg evening dose as necessary</td>
<td>0-4mg</td>
</tr>
<tr>
<td>5</td>
<td>2mg prn</td>
<td>0-2mg</td>
</tr>
<tr>
<td>6</td>
<td>no dose</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>no dose</td>
<td></td>
</tr>
</tbody>
</table>

Buprenorphine should not be administered if there are features of intoxication or sedation, otherwise it should be given on client request as per the above protocol (there is no need for objective withdrawal for subsequent doses, only for the first). Observations should include OOWS and SOWS scores at every observation occasion, and just prior to discharge. (See Appendix 6: Objective Opiate Withdrawal Assessment Scale and Appendix 6A: Subjective Opiate Withdrawal Scale.)

Other symptomatic medications may be administered in the usual way. Clonidine will not be necessary.

Community setting
Buprenorphine has been used successfully in community settings and its long duration of action and relative safety makes it well-suited to this application. The objective is to cover the period of most intense withdrawal symptoms and discontinue buprenorphine quickly.
to minimise rebound withdrawal phenomena and limit duration of symptoms. As with admission and management, flexibility with individual tailoring of dose is ideal.

**Overdose**

General supportive measures should be used, including monitoring respiration and cardiac status. The main danger is respiratory depression, which could lead to arrest. Naloxone (Narcan) can be used but much higher doses will be needed than would be the case with heroin or methadone overdose. The long duration of action should be considered when determining length of treatment. Most fatal overdose cases have involved multiple drug use, especially benzodiazepines.

**Clonidine**

*Using clonidine in opioid withdrawal: suggested dosing protocol*

Clonidine is only used in the hospital or medically supervised residential setting such as in a specialist drug detoxification unit.

Clonidine may be used in managing withdrawal from opioids when buprenorphine is not available or is contraindicated. It is an alpha 2 adrenergic agonist, which reduces many of the physical symptoms of withdrawal. The main side effect is postural hypotension, which can be a problem even with small doses. Monitor people treated with clonidine closely. The dose should be sufficient to ameliorate the withdrawal symptoms. Dose adequacy is ascertained and maintained for a few days or increased should symptoms become more severe. This is followed by a gradual reduction of the initial daily dosage as withdrawal symptoms subside over the next few days.

**Caution:** Extreme sedation and hypotension may be caused by the use of opioids and clonidine together. If supervision is inadequate, opioid-dependent people may sometimes self-administer heroin. Simultaneous use of methadone and other central nervous system depressants can result in overdose.

**Before administering clonidine**

Take baseline blood pressure and heart rate measurements before first dose. Do not use clonidine if:

- person is hypotensive (i.e. blood pressure is less than systolic 90mmHg or diastolic 50mmHg)
- heart rate is less than 50 per minute
- there is clinical evidence of impaired circulation.

**Initial test dose**

- Administer 50 micrograms test dose and monitor for hypotension after half an hour. Measure the person’s blood pressure lying and standing. If hypotensive, clonidine is not recommended. A further 50 micrograms (mcg) may then be administered one hour later if the systolic BP remains equal to or about 90mmHg.

**Hospital or specialist residential setting**

- Blood pressure must be taken before each dose.
- Omit the dose if blood pressure is less than 50mmHg diastolic or 90mmHg systolic.
- If blood pressure remains low, re-evaluate the dose and frequency.

**Usual clonidine regime for heroin withdrawal**

Initial day’s dosing is 6 micrograms (mcg) per kilogram (kg) per day in four divided doses, e.g. 70 kilogram person could have 100 micrograms (mcg) four times a day (QID).

Subsequent dosing the next day is up to 15mcg per kg per day in (four divided doses), e.g. 70kg person could have 100-250mcg four times a day (QID).
Dose is gradually reduced to zero over two or three days after peak withdrawal.

**Note:** Clonidine should be withheld if the systolic blood pressure prior to dosing is below 90mmHg.

**Symptomatic medications**

Both buprenorphine and clonidine do not block all withdrawal symptoms (although buprenorphine is more effective) and are both used with appropriate additional symptomatic medications as described below:

**Table 3.7: Use with symptomatic medications**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insomnia</td>
<td>temazepam 10-20mg nocte prn for no more than three nights.</td>
</tr>
<tr>
<td>Vomiting</td>
<td>metoclopramide (Maxolon) 10mg oral/or intramuscular, three times a day, as necessary</td>
</tr>
<tr>
<td>Muscle cramps</td>
<td>quinine bisulphate 300mg orally twice a day (BD) as necessary.</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>loperamide (Imodium) 2mg orally as necessary (generally 4mg initially then 2mg as necessary following passing unformed stools, to a max of 16mg per day).</td>
</tr>
<tr>
<td>Headache and muscle and bone aches/pain</td>
<td>paracetamol 500mg-1 gram oral four to six hourly as necessary or Norgesic one to two tablets orally four times a day as necessary and/or naproxen 250mg oral three times a day as necessary.</td>
</tr>
<tr>
<td>Anxiety/agitation</td>
<td>relaxation exercises/therapy and/or massage. If unsuccessful diazepam 5-10mg orally four times a day as necessary for four days.</td>
</tr>
</tbody>
</table>

*(NSW Health Department 2000, Alcohol and other drugs policy for nursing practice in New South Wales: Clinical Guidelines 2000-2003.)*

**Note:** Caution is recommended in exceeding stated duration of benzodiazepine use to avoid substituting for heroin dependence. Duration of treatment may need to be longer than stated above for withdrawal from long-acting opioid (e.g. methadone, Kapanol etc).

**Maternal and neonatal care**

Midwives and nurses often have great difficulty dealing with opioid use in neonatal and maternal care. Professional, non-judgemental care—such as reassurance and reinforcement of positive behaviour—will optimise outcomes.

Attracting and maintaining women in treatment services is vital (Hepburn 1993) as follow-up studies also suggest that the long-term outcome in women who enter methadone treatment programs during pregnancy is better in terms of their pregnancy, childbirth and infant development, irrespective of continuing illicit drug misuse (Finnegan 1991; Fraser & Cavanagh 1991). Women attending treatment services usually have better antenatal care and better general health than drug-using women not in treatment, even if they are still using illicit drugs (Batey & Weissel 1993; Department of Health, Welsh Office et al. 1999). Engagement of the partner is an important aspect of enabling the pregnant women to achieve progress at the earliest possible stage.

**Opioid use during pregnancy**

‘Uncontrolled use of opiates during pregnancy can result in many obstetric complications, including abruptio placentae, spontaneous abortion, and intrauterine death ... with the most common being intrauterine growth retardation with low birth weight, and premature labour’ (Dore 2002, p. 301). These symptoms are likely to be caused by fluctuation in illicit
opiate dose leading to repeated intoxication and withdrawal episodes, rather than due to the nature of the opioids themselves.

Blood-borne viral infections can be vertically transmitted by the mother to her baby.

Methadone is the drug of choice for women who are dependent on opiates in pregnancy, with methadone maintenance therapy improving their health and the chances of her having a healthy full-term baby (Dore 2002, p. 301).

- Opioid use during pregnancy is associated with increased risk of prematurity, growth retardation, foetal distress, meconium aspiration and jaundice.
- Opioid withdrawal in pregnancy carries a serious risk of miscarriage or stillbirth, particularly if withdrawal is sudden.
- There are a number of health problems in pregnancy which need to be discussed with the woman and reviewed throughout the pregnancy. These include general nutrition, risks of anaemia, dental hygiene and complications from chronic infection related to injection practice. These all contribute to the increased rate of obstetric complications and premature delivery found in drug-misusing women.
- Pregnancy is recognised as a special entry criterion to methadone maintenance programs due to the increased risks withdrawal poses to the continuation of the pregnancy.
- For practical reasons opioid-dependent partners of pregnant women seeking treatment should be accepted into treatment expediently. Where possible, referral to or advice from a specialist obstetric service for ‘at risk’ pregnancies (contact details are to be found in the relevant methadone program procedures) should be sought in the management of drug dependency during pregnancy. Clients should be counselled about the need for a partnership approach between their methadone prescriber and other relevant services to ensure the best possible outcomes for themselves and their baby.
- Many women want to decrease their methadone dose during pregnancy but withdrawal during pregnancy or a return to unsanctioned opioid use are in themselves associated with risks. These aspects need to be discussed with the client and clients should be closely monitored. A reduction regime can be implemented at any stage of pregnancy provided the dose reduction does not precipitate sudden withdrawal.
- Pregnancy affects the metabolism of methadone and clients may need an increase in their doses and/or to have divided doses.
- In general, a higher methadone dose is associated with better pregnancy outcomes for women who use more than one drug.
- About 60% infants born to mothers on methadone will develop clinical features of withdrawal, called the neonatal abstinence syndrome (NAS). Symptoms usually start at about 72 hours after delivery, but can occur sooner, and may be delayed for up to two weeks of age due to the long half-life of methadone. There are no adverse long-term sequelae if diagnosed early and effectively managed (Dore 2002, p. 302). The mother must be reassured of this.
- There is some research evidence that the final level of methadone dose does not correlate with the occurrence or degree of neonatal withdrawal (DASC 1997).

Management of antenatal care

- The key aims of caring for the woman and her baby is to ensure that she and her family feel welcome and not judged by nurses and midwives and other staff, that she knows her antenatal care and drug use will be managed effectively so as to help her to cease opiate use (and other drugs), and her methadone regime will be stable and comfortable.
• Effective coordination for maternal and family care must occur between all relevant services and other parties. This will usually involve a planning meeting around the 32nd week of the pregnancy (but not a formal case conference unless needed for specific reasons). Here, the relevant professionals, including maternity and neonatal staff, can meet with the woman and her partner if appropriate, and work with them to identify problems, educate them, set goals and plan support and key networks. A decision on whether a formal case conference is required can be made at this meeting or subsequently, depending on circumstances and need.

• The woman, and if she wishes her partner, should be informed about all clinical meetings and invited to attend.

Maternal health problems
There are a number of health problems in pregnancy that need to be discussed with the woman and reviewed throughout the pregnancy. These include general nutrition, risks of anaemia, dental hygiene and complications from chronic infection related to injection practice. These all contribute to the increased rate of complications in pregnancy, including premature delivery found in women using ATOD.

Management of labour
This is similar to any other woman, but pain relief needs special attention. Additional opiates may not be very effective if the receptors are already saturated. Therefore, there should be a low pain threshold for considering the use of an epidural. In addition, there may be increased placental insufficiency in pregnancies of opioid dependent women, leading to an increased risk of intrapartum hypoxia, foetal distress and meconium staining. The opioid dependent pregnant woman will need assessment of risk, and if needed, careful monitoring and management of withdrawal during labour. Seek specialist advice.

Postnatal procedural guidelines

Neonatal withdrawal
• Assess the mother’s ATOD use, especially recording time and amount of last dose, to assess possibility of neonatal abstinence syndrome (NAS) infant withdrawal as well as maternal withdrawal. If the mother has been heroin-dependent, she may need opioid levels maintained with methadone to prevent neonatal abstinence syndrome.
• Assess possibility of neonatal abstinence syndrome by documenting signs and symptoms on the Neonatal Abstinence Syndrome Scoring Chart (See Appendix 5) from two hours post delivery. Score the infant every four hours or prior to feeds unless more frequent scoring is indicated.
• Signs of withdrawal from opiates are vague and multiple and tend to occur 24-72 hours after delivery. They include a spectrum of symptoms such as a high-pitched cry, rapid breathing, hungry but ineffective sucking, and excessive wakefulness. At the other end of the spectrum symptoms include hypertonicity and convulsions but these are not common. Neonatal withdrawal can be delayed for up to 7-10 days if the woman is taking methadone in conjunction with benzodiazepines. Benzodiazepine use causes more prolonged symptoms, including respiratory problems and depression.
• Do not administer Narcan to the infant if the mother is on methadone/heroin and has had narcotics for pain relief. If respiratory difficulties occur, supportive management (including artificial ventilation) is indicated.
• Explain all treatments and procedures to the mother. Explain that both she and her baby will be monitored for signs of withdrawal and treatment will be administered as necessary. Explain that neonatal withdrawal can occur one to four days post delivery.
• Explain that management may include admission of her child to the neonatal unit (if available) for special treatment of neonatal abstinence syndrome (NAS).
• Involve the mother in all baby care, including neonatal abstinence syndrome (NAS) scoring.
• Provide a low-stimulus environment for mother and her baby where possible and assist the mother in settling techniques, e.g. use of dummies, relaxation baths and massage. This will facilitate bonding and minimise withdrawal symptoms.
• Hold regular meetings, seek consultation with an obstetrics unit specialising in at-risk pregnancies, social worker, discharge planner and unit staff for discharge planning.
• Discuss the baby’s withdrawal symptoms and other expected behaviours from baby that may occur following discharge. Referral to a service specialising in mothers and their babies, parenting programs and baby massage programs may also be useful.

Breastfeeding
• Opioids are present in breast milk. Breastfeeding should be interrupted for 24 hours after using heroin, owing to the uncertain composition of street heroin.
• Breastfeeding is recommended for women who are maintained on methadone. However, breastfeeding is not recommended if methadone is being used in combination with other drugs.
• Women should wean infants over at least a one-week period to prevent any risk of withdrawal in the infant.
• Mothers should be informed that research evidence on the effects of high doses of methadone through breastfeeding is unclear; breastfeeding should be discussed with the medical practitioner.
• Women who have HIV, hepatitis B or C should be advised on the best available evidence related to transmission of these virii via breast milk. The current recommendations are:
  HIV—bottlefeeding
  hepatitis B—breastfeeding
  hepatitis C—breastfeeding
• Hepatitis C has been found in breast milk, but the levels of virus are not thought to be high enough to pose a transmission risk.
• Because the health benefits of breastfeeding far outweigh the low risk of hepatitis C transmission, women with hepatitis C are encouraged to breastfeed their newborn babies.
• Women with hepatitis C who have cracked or bleeding nipples are advised to express and discard milk from that breast until lesions are healed as blood may be present in the breast milk.
• To learn more about breastfeeding positions and techniques that may help to prevent cracked nipples, health workers should advise women to consult with a lactation consultant or midwife at a maternity hospital or women’s health centre, or service specialising in the care of mothers and their babies (Commonwealth Department of Health and Aged Care 2001).

Nursing guidelines—maintenance pharmacotherapies in the acute hospital setting

Rationale
Effective nursing care includes appropriate management of a person receiving maintenance pharmacotherapy during their hospital stay. The continued provision of their maintenance pharmacotherapy because they are taking methadone or buprenorphine is important as it will help maintain their comfort and safety, assist in planning pain management, and prevent the harms associated with poorly managed opioid withdrawal, thus reducing the risk of relapse and/or unplanned early discharge.
General principles

▪ Nurses must consult with the ATOD specialist about the care of all people admitted to hospital who are receiving maintenance pharmacotherapy. Ensure that their methadone or buprenorphine dose is known and confirmed with prescriber, and that the dose is quoted in both mg and mls for methadone.

▪ Ensure that adequate pain relief is provided and that this is individually tailored to the person’s clinical presentation and expressed need.

Methadone

▪ action
▪ administration
▪ rationale for prescribing
▪ precautions

Buprenorphine

▪ action
▪ administration
▪ rational for prescribing
▪ precautions

Procedural guidelines

1. Take an alcohol, tobacco and other drug use history on admission.

2. Assess the person for signs of alcohol and other drug intoxication, overdose or withdrawal and take appropriate action. (See Section 2.4: Managing intoxication, Section 2.5: Managing overdose and Section 2.6: Managing withdrawal.)

3. When a person reports that they are receiving maintenance pharmacotherapy, confirm the following details:
   ▪ the name of their program/prescribing doctor
   ▪ what medication regime they are on, e.g. methadone or buprenorphine
   ▪ where they receive their medication, e.g. at the drug clinic or community pharmacy
   ▪ dose (ensure doses are recorded in mgs)
   ▪ date and time of last dose (ensure methadone doses are recorded in mgs)
   ▪ dosage and number of take-away doses usually provided, e.g. three a week (ensure doses are recorded in mgs and mls for methadone)
   ▪ whether the person has brought any take-away doses to hospital.

4. Confirm the person’s enrolment in a pharmacotherapy maintenance program by telephoning the usual prescriber or service provider.

5. Contact the program or the dispenser to confirm the details given above, including take-away doses, and inform them of the person’s admission to hospital. If a person cannot supply telephone numbers, call an alcohol and drug information service for details of maintenance pharmacotherapy services, accredited doctors licensed to prescribe (e.g. GPs).

6. Arrange for any take-away doses held by the person to be forwarded to the hospital pharmacy. Take-away doses must not be consumed in hospital and should not be returned to the person on discharge.

7. Particular care must be taken to notify the pharmacotherapy service (GP and/or chemist) of the person’s impending discharge from your hospital so that continuity of care, in particular the pharmacotherapy regime, can be maintained. The person must also be informed in a timely manner as to what they can expect and what has been planned.
8. Arrange for prescription of maintenance pharmacotherapy by the appropriate medical officer and dispensing by the hospital pharmacy. Ensure that methadone syrup and not physeptone tablets are used for people on methadone maintenance.

9. Where oral methadone is contraindicated (e.g. nil-by-mouth), physeptone or an alternative opioid should be administered parenterally. Buprenorphine can still be given sublingually when on a nil-by-mouth order. If other medical contraindications occur, such as head injury, contact the senior medical officer and follow the appropriate local policy guidelines.

10. Monitor the potential for drug interactions with methadone.

For people on a maintenance pharmacotherapy program who require pain relief:

1. Follow the procedures above.

2. In addition to authorised methadone dose, provide the person with such opioid analgesics as are necessary to control pain. Such people often have altered tolerance to opioids and may require higher doses of analgesia than normal.

Table 3.8: **Drug interactions with methadone**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Degree of interaction</th>
<th>Effect</th>
<th>Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td></td>
<td>Increased sedation</td>
<td>Additive central nervous system (CNS) depression</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>Moderate</td>
<td>Reduced methadone levels, raised sedation</td>
<td>Raised hepatic metabolism, additive CNS depression</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td></td>
<td>Enhanced sedative effect</td>
<td>Additive CNS depression</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td></td>
<td>Antagonist effect</td>
<td>Can only be used safely in low dose (20mg or less daily) methadone treatment</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>Moderate</td>
<td>Reduced methadone levels</td>
<td>Raised hepatic metabolism, methadone may need twice daily dosing regime</td>
</tr>
<tr>
<td>Chlormethiazole</td>
<td></td>
<td>Increased sedation</td>
<td>Additive CNS depression</td>
</tr>
<tr>
<td>Chloral hydrate</td>
<td></td>
<td>Increased sedation</td>
<td>Additive CNS depression</td>
</tr>
<tr>
<td>Cimetidine</td>
<td>Moderate</td>
<td>Possible increase in methadone levels</td>
<td>Inhibits hepatic enzymes involved in methadone metabolism</td>
</tr>
<tr>
<td>Cisapride Domperidone Metoclopramide</td>
<td></td>
<td>Morphine has an increased rate of onset of action and increased sedative effect when used with these drugs</td>
<td>Unknown</td>
</tr>
<tr>
<td>Cyclizine</td>
<td>Severe</td>
<td>Injection with opiates causing hallucinations reported</td>
<td>Unknown</td>
</tr>
<tr>
<td>Drug</td>
<td>Degree of interaction</td>
<td>Effect</td>
<td>Mechanism</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------</td>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Codeine</td>
<td></td>
<td>Enhanced sedative effect</td>
<td>Additive CNS depression</td>
</tr>
<tr>
<td>Desipramine</td>
<td>Moderate</td>
<td>Raised desipramine levels (x2)</td>
<td>Unknown—interaction not seen with other tricyclic antidepressants</td>
</tr>
<tr>
<td>Dextropropoxyphene</td>
<td></td>
<td>Enhanced sedative effect</td>
<td>Additive CNS depression</td>
</tr>
<tr>
<td>Disulfiram</td>
<td>Avoid in combination with methadone formulations containing alcohol (check with manufacturers)</td>
<td>Very unpleasant reaction to alcohol which can be alarming</td>
<td>Disulfiram inhibits alcohol metabolism allowing metabolites to build up</td>
</tr>
<tr>
<td>Erythromycin</td>
<td>In theory should interact, but combination has not been studied</td>
<td>Increase in methadone levels</td>
<td>Decreased methadone metabolism</td>
</tr>
<tr>
<td>Fluconazole</td>
<td>In theory the same as ketoconazole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>Clinically important</td>
<td>Raised methadone levels but not as significant as for fluvoxamine</td>
<td>Decreased methadone metabolism</td>
</tr>
<tr>
<td>Fluvoxamine</td>
<td>Clinically important</td>
<td>Raised plasma methadone levels</td>
<td>Decreased methadone metabolism.</td>
</tr>
<tr>
<td>Grapefruit juice</td>
<td>Should interact in theory and there have been several anecdotal reports</td>
<td>Raised methadone levels</td>
<td>Decreased methadone metabolism</td>
</tr>
<tr>
<td>Indinavir</td>
<td>Clinically important</td>
<td>Raised methadone levels</td>
<td>Decreased methadone metabolism</td>
</tr>
<tr>
<td>Ketoconazole</td>
<td>Clinically important</td>
<td>Raised methadone levels</td>
<td>Decreased methadone metabolism</td>
</tr>
<tr>
<td>Monoamine oxidase inhibitors antidepressants including moclobamide and selegiline.</td>
<td>Severe with pethidine although rare with methadone. Concurrent use should be avoided.</td>
<td>CNS excitation—delirium, hyperpyrexia, convulsions or respiratory depression</td>
<td>Unknown</td>
</tr>
<tr>
<td>Naltrexone</td>
<td>Severe</td>
<td>Reverses the effects of methadone in overdose (long-acting)</td>
<td>Opiate antagonist, works by competing for opioid receptors</td>
</tr>
<tr>
<td>Naloxone</td>
<td>Severe</td>
<td>Reverses the effects of methadone in overdose (short-acting)</td>
<td>Opioid antagonist, works by competing for opioid receptors</td>
</tr>
<tr>
<td>Drug</td>
<td>Degree of interaction</td>
<td>Effect</td>
<td>Mechanism</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------</td>
<td>---------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Nevirapine</td>
<td>Clinically important</td>
<td>Decreased methadone levels</td>
<td>Increased methadone metabolism</td>
</tr>
<tr>
<td>Nifedipine</td>
<td>Has been demonstrated in vitro only</td>
<td>Increased nifedipine levels. No effect on methadone levels</td>
<td>Methadone increases the metabolism of nifedipine</td>
</tr>
<tr>
<td>Omeprazole</td>
<td>To date, demonstrated only in animals</td>
<td>Increased methadone levels</td>
<td>Possibly an effect upon methadone absorption from the gut</td>
</tr>
<tr>
<td>Other selective serotonin in re-uptake inhibitors</td>
<td>Theoretical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenobarbitone</td>
<td>Moderate</td>
<td>Reduced methadone levels</td>
<td>Raised hepatic (liver) metabolism—see carbamazepine</td>
</tr>
<tr>
<td>Phenytoin</td>
<td>Moderate</td>
<td>Reduced methadone levels, withdrawal symptoms</td>
<td>Raised hepatic (liver) metabolism—see carbamazepine</td>
</tr>
<tr>
<td>Rifabutin</td>
<td>Occasionally clinically important</td>
<td>Decreased methadone levels</td>
<td>Increased methadone metabolism</td>
</tr>
<tr>
<td>Rifampicin</td>
<td>Severe</td>
<td>Reduced methadone levels, withdrawal symptoms</td>
<td>Increased metabolism</td>
</tr>
<tr>
<td>Ritonavir</td>
<td>Clinically important</td>
<td>Ritonavir may reduce or increase plasma methadone levels</td>
<td>Increased or reduced methadone metabolism</td>
</tr>
<tr>
<td>Tricyclic antidepressants e.g. amitriptyline.</td>
<td>Moderate</td>
<td>Increased sedation.</td>
<td>Unknown</td>
</tr>
<tr>
<td>Urine acidifiers e.g. ammonium chloride.</td>
<td></td>
<td>Reduced methadone levels</td>
<td>Raised urinary excretion</td>
</tr>
<tr>
<td>Urine alkalinisers eg sodium bicarbonate.</td>
<td>Moderate</td>
<td>Raised methadone levels</td>
<td>Reduced urinary excretion</td>
</tr>
<tr>
<td>Zidovudine</td>
<td></td>
<td>Raised levels of zidovudine possible</td>
<td>Unknown</td>
</tr>
<tr>
<td>Zopiclone</td>
<td></td>
<td>Increased sedation</td>
<td>Additive CNS depression</td>
</tr>
</tbody>
</table>

(Adapted from Department of Health, Welsh Office et al. 1999)

**Altered tolerance and effective pain management**

**Rationale**
Pain management can be problematic, particularly for people who have altered tolerance. Nursing and medical staff’s lack of knowledge about altered tolerance and concern about contributing to people’s opioid dependence has sometimes resulted in people receiving inadequate analgesics.
General principles

Tolerance is the neurological process that occurs with prolonged daily use of psychoactive drug/s, and where the person needs increasingly higher dosages of the drug to produce the same effect or intoxicating feeling as first experienced with lower doses. The first indication of tolerance is decreased duration, then decreased analgesic effect of the drug—this is an involuntary physiological response.

The people most likely to have altered tolerance are:

▪ those who have been on regular prescribed opiate medication for long periods—they may be said to have iatrogenic dependence
▪ those currently receiving opioid maintenance pharmacotherapy program or who are currently dependent on opioids
▪ those who regularly take liver enzyme-inducing drugs (e.g. alcohol, dilantin, interferon and rifampicin etc.).

Procedural guidelines—acute pain management

While it is not a nursing responsibility to prescribe analgesics, it is crucial that nursing staff assess for and attend to pain relief effectively, recognising the significant impact of altered tolerance on clinical management of pain, and explaining to the person the consequence of any necessary changes in their pain medication. Clear communication regarding changes in their medication will help to lessen any anxiety and provide reassurance.

It is critical that analgesia is not withheld from the person unless medically indicated. Providing pain relief will not make the person more drug dependent, but may exacerbate their existing drug problems and precipitate relapse.

People on methadone

If the person is taking part in a methadone program their usual daily dose must be continued—this will not provide pain relief. They will need another analgesic prescribed as well as their methadone.

Opioid-dependent people (e.g. heroin users, those receiving maintenance pharmacotherapy, and those with chronic pain)

People currently using heroin will have increased tolerance to opioid analgesics. They should be given appropriate analgesics for their medical condition, and alleviation of any drug withdrawal. Because of their neurological tolerance, they may require higher doses of opioids or other analgesics than people who are not opioid dependent, particularly if they are receiving daily methadone as pharmacotherapy for opioid dependence. Effective pain management starts with the dose usually required for an opioid naive individual, and then titrating doses upwards until adequate pain relief is achieved.

Analgesics should not be withheld unless the person is becoming over-sedated.

To ensure that adequate analgesics are given, it is essential to consider the following issues:

▪ Ensure an adequate history is taken to determine whether the person is likely to have altered tolerance.
▪ Allay fears regarding pain relief while in hospital.
▪ Discuss the proposed management plan with the person.
▪ Intravenous or intramuscular administration may be appropriate initially. As pain control needs lessen, change to oral medication of equivalent strength.
▪ Patient-controlled analgesic systems may assist in achieving rapid relief of pain.
▪ Should analgesic needs be prolonged (weeks), it is appropriate to change from short-acting to long-acting medication to achieve more constant pain relief throughout the day (e.g. MS Contin, Kapanol or Physeptone).
▪ Change from PRN medication (as necessary) to set times if possible.
• Adjuvant medication may be helpful, particularly if prolonged use of analgesics is required. Adjuvant medications include:
  – tricyclic antidepressants
  – non-steroidal anti-inflammatory drugs
  – anti-convulsants.

• Other supportive methods of pain relief can be useful in acute or chronic pain states. They include:
  – transcutaneous electrical nerve stimulation (TENS) machine
  – relaxation techniques and meditation
  – diversion techniques
  – massage
  – hydrotherapy.

• Consult a pain management clinic or a specialist clinical advisory line.

All people who have undergone withdrawal from opioids during hospitalisation, or under supervised withdrawal, should be educated and warned about the risk of overdose if they use opioids again, even with much smaller doses/amounts than they were using previously.

**Opioid withdrawal precipitated by naltrexone (rapid detoxification)**

Naltrexone is an antagonist that blocks the effects of opioids on the central nervous system. It can block the effects of heroin completely. Naltrexone has only quite recently been registered for treatment of opioid and alcohol dependence in Australia. There have been a number of reports of opioid-dependent people self-administering naltrexone, precipitating a severe withdrawal reaction requiring hospital treatment.

Naltrexone, which has short duration, or naloxone, which has a long duration, may be used. When naltrexone is given administered orally (naloxone is injected) to an opioid-dependent person, it immediately precipitates withdrawal. This has been used for rapid detoxification with regimes ranging from a combination of relatively low doses of naltrexone with clonidine to high doses of naltrexone administered rapidly in conjunction with very heavy sedation or anaesthesia, so that the person does not experience the resultant withdrawal (Gowing et al. 2001, p. 25). There is the risk of diarrhoea, vomiting/inhalation during sedation or anaesthesia, and delirium (not typical of opioid withdrawal). Gowing et al. (2001) conclude that there is insufficient evidence to show risks and benefits of rapid detoxification with anaesthesia or heavy sedation, and caution is advised.

**Precipitated withdrawal**

- Onset of naltrexone-precipitated withdrawal occurs 20-60 minutes following ingestion of a naltrexone tablet.
- Gastrointestinal symptoms are usually predominant. Severe vomiting and diarrhoea may occur.
- People become agitated and distressed and delirium with confusion is common.
- Signs of sympathetic overactivity, particularly profuse sweating and piloerection, may occur.
- If a person has taken sedative drugs in conjunction with naltrexone, as commonly occurs, delirium is exacerbated but other signs may be less clear.

There are significant risks associated with precipitated withdrawal:

- Most deaths associated with precipitated withdrawal appear to have been the result of aspiration associated with high doses of sedative drugs.
- Fluid and electrolyte problems secondary to vomiting and diarrhoea.

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123
• During acute delirium, a confused person must be considered at risk and require medical care.

Diagnosis and assessment
• A history may be difficult to obtain from people who are confused, particularly if they are reluctant to disclose their heroin/opiate use.
• Clinicians should suspect naltrexone-precipitated withdrawal in anyone presenting with signs of opioid withdrawal in conjunction with delirium or intractable vomiting.
• A history of opioid dependence should be gained from the person, significant others or by inspection of injection sites for recent track marks. An absence of track marks should not exclude this diagnosis.
• Careful assessment of the degree of sedation, and of the person’s capacity to protect their airway, is essential.
• The use of flumazenil to reverse sedation is not recommended, due to the chance of the person having concurrent benzodiazepine dependence and the risk of inducing life-threatening seizures.
• People who are deeply sedated or vomiting may require intubation and intensive care unit management.
• It may be desirable to check electrolytes and arterial blood gases.

Management
• There is a risk of delirium and agitation for a period of approximately four hours with naltrexone-precipitated withdrawal. Treatment is supportive and symptomatic.
• People with vomiting may require fluid and electrolyte replacement.
• Although most people will experience fluid loss to some degree, the insertion of intravenous cannulae and administration of fluids should be balanced against potential problems. People in delirium frequently remove intravenous lines.
• Most people will be capable of tolerating oral fluids within 12 hours of ingestion of naltrexone.
• During naltrexone-induced withdrawal delirium, most people can be reoriented. This is critical in both obtaining a history and in clinical management.
• The most important part of management is reassurance that symptoms, although severe, will be short-lived.
• Nursing staff should be aware that the antagonist-induced withdrawal syndrome is extremely traumatic and that people expressing fear of death, for example, should not be treated with contempt but given appropriate, repeated assurance.
• The administration of opioid agonists is unlikely to be helpful. People should be warned that taking heroin will not alleviate symptoms.
• In managing vomiting and diarrhoea, clinical experience indicates that conventional anti-emetics provide little relief. Octreotide (Sandostatin) 100mg is the drug of choice in reducing vomiting and diarrhoea.
• Agitation and sympathetic over-activity can be treated with clonidine (150mg orally or 100mg intramuscular, repeated after two hours if agitation persists and hypotension is not a problem).
• When urgent sedation is imperative (where people are violent and confused), midazolam 5-10mg intramuscular may be helpful.
• When abdominal cramps are a problem, a single dose of 20mg hyoscine-butylbromide (Buscopan) can help.
Additional management

- The person and their families should be informed that residual symptoms may persist for up to seven days.
- People need to be warned of the high risk of overdose if they use heroin or other opioids following naltrexone-induced withdrawal.
3.3 Benzodiazepines

Introduction

Benzodiazepines belong to the sedative-hypnotic group of drugs. They have a general central nervous system depressant effect which is dose dependent; as the dose increases there is progression from sedation through hypnosis to stupor.

Benzodiazepines cause respiratory depression, but this effect is minimal unless other central nervous system depressants are taken (e.g. alcohol and opioids). A synergistic action may occur when alcohol or opioids are used in conjunction with benzodiazepines. This may result in respiratory depression that may be life-threatening.

People who use large amounts of benzodiazepines may experience withdrawal seizures on cessation of use or severe reduction in dose.

Benzodiazepine use should not cease abruptly. A dose reduction regime should always be used.

Uncomplicated benzodiazepine withdrawal can be accomplished at home with a gradual diazepam reduction regime. However, anyone who presents already exhibiting symptoms of withdrawal (e.g. agitation, confusion, convulsions, and delirium) should be admitted for assessment and treatment. The following guidelines focus on inpatient withdrawal and management.

Criteria for in-hospital management

People may need admission because:

- they present in withdrawal
- they have an illness or injury which warrants admission and withdrawal becomes an additional clinical issue
- they are unable to take responsibility for the self-administration of their medication in the home.

Assessment and quantification

Record the name of the drug, the dose (in milligrams) and duration of use, frequency, time of last use, positives and negatives and goals related to use. There are two main patterns of benzodiazepine dependence, the most common being low dose dependency over many years, particularly among women and elderly people. High dose dependence, often in the context of polydrug use, can also occur.
Table 3.9: Absorption rates, half-life, and equivalent daily doses of common benzodiazepines*

<table>
<thead>
<tr>
<th>Generic</th>
<th>Trade name</th>
<th>Time to peak concentration</th>
<th>Elimination half-life**</th>
<th>Equivalent dose***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diazepam</td>
<td>Antenex</td>
<td>30-90 min</td>
<td>32 hours</td>
<td>5mg</td>
</tr>
<tr>
<td></td>
<td>Ducene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Valium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triazolam</td>
<td>Halcion</td>
<td>1 hour</td>
<td>2 hours</td>
<td>0.25mg</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>Kalmar</td>
<td>1 hour</td>
<td>14 hours</td>
<td>0.5-1.0mg</td>
</tr>
<tr>
<td></td>
<td>Xanax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bromazepam</td>
<td>Lexotan</td>
<td>12 hours</td>
<td></td>
<td>3-6mg</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>Paxam</td>
<td>2-3 hours</td>
<td>22-54 hours</td>
<td>0.5mg</td>
</tr>
<tr>
<td></td>
<td>Rivotril</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td>Librium</td>
<td>15 hours</td>
<td></td>
<td>15-20mg</td>
</tr>
<tr>
<td>Flunitrazepam</td>
<td>Hypnodorm</td>
<td>1-2 hours</td>
<td>20-30 hours</td>
<td>1mg</td>
</tr>
<tr>
<td></td>
<td>Rohypnol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorazepate</td>
<td>Traxene</td>
<td>60 hours</td>
<td></td>
<td>7.5mg</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>Ativan</td>
<td>2 hours</td>
<td>12 hours</td>
<td>1-2mg</td>
</tr>
<tr>
<td>Flurazepam*</td>
<td>Dalmane</td>
<td>70 hours</td>
<td></td>
<td>20mg</td>
</tr>
<tr>
<td>Nitrazepam</td>
<td>Alodorm</td>
<td>2 hours</td>
<td>28 hours</td>
<td>5mg</td>
</tr>
<tr>
<td></td>
<td>Mogadon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clobazam</td>
<td>Frisium</td>
<td>18 hours</td>
<td></td>
<td>15mg</td>
</tr>
<tr>
<td>Oxazepam</td>
<td>Murelax</td>
<td>2-3 hours</td>
<td>8 hours</td>
<td>15-30mg</td>
</tr>
<tr>
<td></td>
<td>Alepam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Srepax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temazepam</td>
<td>Euhypnos</td>
<td>30-60 min</td>
<td>10 hours</td>
<td>20mg</td>
</tr>
<tr>
<td></td>
<td>Normison</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nomapam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temaze</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temtabs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Based on manufacturer’s product information.
** Elimination half-life: time for the plasma drug concentration to decrease by 50%.
*** Equivalent dose: dose that is equivalent to Diazepam 5mg.

(NSW Department of Health 1999)

Benzodiazepine intoxication
People who use benzodiazepines on a regular basis may develop tolerance to the sedative effect. In some people benzodiazepines produce a paradoxical reaction of violence and disinhibited behaviour. (See Section 2.4: Managing intoxication.)

Effects of benzodiazepines
- decreased anxiety
- hypnotic effects (sleepiness)
- sedation
- anti-convulsant effects.
Side effects

▪ poor motor coordination
▪ ataxia
▪ slurred speech
▪ vertigo
▪ blurred vision
▪ lethargy
▪ poor memory recall
▪ confusion
▪ drowsiness
▪ stupor
▪ in rare cases: agitation, hostility, bizarre uninhibited behaviour.

Benzodiazepine withdrawal

The use of therapeutic doses of benzodiazepines, for as little as six weeks, can result in neuro-adaption and withdrawal syndrome (that lasts from one to six weeks) on cessation. Longer-term use may result in withdrawal symptoms that can last from six months to one year, with gradual diminishing intensity of symptoms.

If a therapeutic dose is prescribed, and continued for longer than six weeks, physical dependence and symptoms of withdrawal will affect 15-50% of people (studies vary). Not everyone will experience symptoms, and of those who do, the symptoms are not always disabling. This information can be reassuring when discussing the need for withdrawal.

Abrupt withdrawal from high doses use (greater than 50mg diazepam or equivalent per day) without withdrawal symptoms has been observed clinically, but the incidence is unknown. Use of higher doses is more likely to produce a withdrawal syndrome with more severe symptoms.

Many people who are using high doses of benzodiazepine, and who also use opioids, report that benzodiazepine withdrawal is worse than opioid withdrawal, commenting that benzodiazepine withdrawal is ‘mentally’ worse. Withdrawal symptoms may be more severe for people who use more than one kind of benzodiazepine, perhaps because of the unpredictable effects of withdrawal from drugs with varying half-lives.

Client expectations

The number of symptoms experienced, and their magnitude, will vary with the severity of withdrawal. If the person is receiving a long-term prescription of methadone or buprenorphine for concomitant opiate dependency, the dose should be kept stable throughout the benzodiazepine reduction period. Concurrent withdrawal of both drugs is not recommended without specialist support and medical supervision in an inpatient setting.

Onset of withdrawal depends on the half-life of the particular benzodiazepine used by the person. Withdrawal from short-acting benzodiazepines generally occurs earlier and is more severe than withdrawal from longer-acting benzodiazepines.

Signs and symptoms of benzodiazepine withdrawal

Subjective symptoms with few observable signs of withdrawal are a feature, particularly of low dose withdrawal. Individuals may report feeling extremely mentally distressed (as though they are ‘going mad’), although they may not have any obvious signs of physical discomfort. This may result in the person not receiving the care that would be appropriate during this time.
Common symptoms
• anxiety
• insomnia
• restlessness
• agitation
• irritability
• poor concentration
• poor memory
• depression
• increased muscle tension
• aches and twitching
• sweating.

Less frequent symptoms
• nightmares
• agoraphobia
• feelings of unreality
• depersonalisation
• panic attacks
• nausea
• dry retching
• light-headedness/dizziness
• decreased appetite
• weight loss
• sweating
• lethargy
• increased sensory perception (e.g. metallic taste)
• aches and pains
• headaches
• palpitations
• tremor
• blurred vision
• raised body temperature
• ataxia
• gastrointestinal upset.

Uncommon symptoms
• delusions
• paranoia
• hallucinations
• seizures (more common with concurrent alcohol withdrawal)
• persistent tinnitus
• confusion.

Major complications
• progression to severe withdrawal
• risk of injury (to self or others) or self-destructive behaviour due to altered mental state
• risk of dehydration or electrolyte imbalance
• potential for seizures
• presence of concurrent illness which masks or mimics withdrawal
• accidents due to orthostatic hypotension.
Course of withdrawal from short-acting and long-acting benzodiazepines

Withdrawal from short-acting benzodiazepines (e.g. oxazepam, temazepam, alprazolam, and lorazepam) typically produces a faster and more severe onset of symptoms than withdrawal from long-acting benzodiazepines (e.g. diazepam, nitrazepam), and may be more difficult to undergo and complete.

Some people who use benzodiazepines, particularly at low-doses, do not experience any withdrawal symptoms.

Figure 3.2: Severity of signs and symptoms

![Graph showing severity of signs and symptoms over time for withdrawal from short and long half-life benzodiazepines.](New South Wales Department of Health 2000)

Nursing management

(see Section 2.6: Withdrawal Management)

Undertake nursing observations to identify and manage withdrawal symptoms and prevent the progression to severe withdrawal.

There is no validated tool for recording benzodiazepine withdrawal symptoms in an inpatient setting. There is a tool currently being trialled by the Drug and Alcohol Services Council in South Australia. (See Appendix 7: Benzodiazepine Withdrawal Assessment Scale.)

In particular, offer:
- reassurance re distorted sensory stimuli
- heat and massage for muscle aches
- symptomatic management to reduce the severity of symptoms.

Pharmacological treatment

The availability of nursing and medical supervision in a hospital setting enables a more rapid reduction of the diazepam dose than in a community setting (e.g. at home). The pharmacological management of benzodiazepine withdrawal usually occurs by converting the average daily dose (e.g. serepax) to the equivalent diazepam dose (maximum 80mgs per day), and implementing a gradual or rapid diazepam reduction regime.
The usual tapered dose is for an inpatient to reduce the dose from 80mg per day by 10mg daily until 40mg per day is achieved, then reduce by 5mg per day until zero is achieved. The optimal dosage should reduce severity of withdrawal symptoms without oversedating, and this requires monitoring of the person and individualising the regime accordingly.

Mild to moderate withdrawal is usually adequately controlled by administration of oral diazepam.

Severe withdrawal may require administration of intravenous diazepam. Beware of the possibility of apnoea during the first few minutes of administration.

Caution: Diazepam needs to be used with extreme caution or may even be contraindicated in certain conditions (e.g. respiratory failure, liver disease). In some cases, use of a short-acting benzodiazepine may be considered.

Maternal and neonatal care

Maternal issues

Women who are pregnant and dependent on benzodiazepines should not abruptly cease using the drug. A slow gradual reduction regime, under medical supervision, is essential.

Neonates

- Babies have shown a variety of symptoms due to benzodiazepine intoxication or withdrawal, such as respiratory distress secondary to hypoventilation, poor sucking, hypotonia and poor temperature regulation, which can persist for weeks after birth.
- Abrupt benzodiazepine withdrawal at birth appears to result in neonatal irritability, hypertonia, tremors, seizures, diarrhoea, etc. Neonatal abstinence syndrome (NAS) onset may occur 1-10 days after delivery and can last from 7-28 days.

Breastfeeding

- Women using higher than therapeutic doses should not breastfeed.
- Avoid breastfeeding 1-2 hours after consumption of tablet (peak plasma period).
- Monitor the baby’s condition and stop breastfeeding if the baby appears sedated.
3.4 Psychostimulants

Introduction
Drugs labelled as ‘psychostimulants’ include a diverse range of CNS stimulants such as amphetamine (speed), cocaine (coke, snow), methamphetamine (crystal meth, speed, ice), methylphenidate—Ritalin, and methylene dioxy-methamphetamine (MDMA—ecstasy). Nicotine is also a psychoactive stimulant.
Stimulants activate the CNS, having a peripheral sympathomimetic action, and are often used for the effects such as euphoria, increased sense of well-being, increased energy, more confidence or over-confidence, improved cognitive and psychomotor performance, suppression of appetite and insomnia (Latt et al. 2002, p. 125).
The effectiveness of interventions aimed at the management of psychostimulant withdrawal, reducing or ceasing stimulant use is currently being investigated.

Assessment and quantification
Next to cannabis use, psychostimulant use is the most commonly-used illicit drug amongst young Australian women and men, usually commencing during adolescence with significant rates of injecting use. Therefore it is very important when taking the alcohol/drug history to include psychostimulant usage.
Quantification of illicit drugs used, including psychostimulants, can be difficult because they are often ‘cut’—mixed—with other substances including other drugs, glucose and sucrose, and the actual dose is always unknown.
Try to find out and record the:
▪ usual pattern of use (e.g. occasional vs bingeing over several days and if this time is different)
▪ type of psychostimulant (e.g. speed, cocaine, MDMA, methamphetamine)
▪ last dose/use (date and time)
▪ route/s of administration (injecting, snorting, swallowing)
▪ level and frequency (e.g. number of tablets/per time, frequency of use—daily, weekly, binges/runs)
▪ dollar cost of the drug/’deal’ (at least estimated ‘street’ weight in grams)
▪ form (powder that is dissolved and injected, single or multiple tablets)
▪ risk of dependence and withdrawal
▪ risk of complications from acute or chronic toxicity.
Also record what other drugs—legal, medicinal and illicit—they take in association with psychostimulant use (polydrug use) and efforts to self-medicate for unwanted effects of psychostimulants.
If appropriate, and depending on the mental and physical state of the person, try and find out why the person uses this drug—what does it so for them (e.g. performance-enhancing) and any harm they believe it has caused. Record this.

Psychostimulant intoxication
Onset and duration of acute effects:
Speed—amphetamine: Onset of action when taken orally is about 30-60 minutes, with peak cardiovascular effect at 60 minutes and CNS effects about two hours. Duration of
effect is about 4-6 hours. Intranasal (snorting) produces effects within a few minutes; smoking and intravenous use produces even faster effects.

**Ecstasy—MDMA:** Onset of action when taken orally is 30-60 minutes with peak effect at 90 minutes. Duration of effect is about 4-6 hours.

**Coke—cocaine:** Onset of action when snorted is within minutes. When ‘crack’ is inhaled or cocaine is taken intravenously, action is within seconds. There is an immediate and marked ‘rush’ that is highly pleasurable with heightened cognitive awareness, energy and euphoria lasting for about 30 minutes. Rapidly diminished effects due to short half-life (Latt et al. 2002, pp. 126-128).

**Psychostimulant effects**
- increased blood pressure, pulse, respiration, temperature
- dry mouth
- suppression of appetite
- increased alertness and activity—moving, talking
- pressured speech
- enhanced self-confidence
- euphoria
- exhilaration
- mood swings
- stereotypical, repetitious behaviour
- panic
- inability to sleep
- paranoia
- aggression
- in rare cases: dysphoria and delirium
- pupils may be enlarged.

**Acute toxicity**

Acute toxic effects of psychostimulants are ‘an extension of the pharmacological properties of the drugs, and are determined by the dose, route of administration, and mental state and personality of the user’ (Latt et al. 2002, p. 129), and their environment at the time of use (Zinberg 1984).

Manufacture of these illegal drugs occurs in ‘backyard’ or ‘portable’ illicit laboratories by people with variable skills and poor quality controls, resulting in extreme variability in the nature, quality and chemical composition of the drugs. These factors place all users at very real risk of being exposed to lethal adulterants, unknown doses, unpredictable side effects, and toxicity (Latt et al. 2002, p. 129).

The toxic effects of amphetamines and cocaine are similar causing increased stimulation and sympathomimetic activity of the CNS. Cocaine also has additional anaesthetic and vasoconstrictor effects that can result in more severe toxicity, and multiple organs can be affected (Latt et al. 2002, p. 129).

People who have used excessive amounts of psychostimulants can experience persecutory delusions and become hostile and violent in response to this. Panic can result in irrational behaviour causing harm to self or others.

**Note:** The possibility of psycho-stimulant use should always be considered in a young person presenting with seizures or a cerebrovascular accident.

The possibility of cocaine use should be considered in a young person with myocardial ischaemia or infarction, arrhythmias, myocarditis, or dilated cardiomyopathy (Latt et al. 2002, p. 129).
The constellation of serious symptoms includes:

- **Skin**: Sweating and hyperpyrexia
- **CNS**: Tremors, excitability, restlessness, apprehension, agitation, muscle twitching, and repetitive stereotypical behaviour.
- **Neuropsychiatric**: Manifestations include paranoia, hallucinations, delusions, hyperarousal, and bizarre, violent and erratic behaviours.
- **Cardiovascular**: Hypertension, tachycardia, dysrhythmias, arrhythmias, and sudden death. Cocaine is associated with myocardial oxygen demand and enhanced platelet aggregation, mesentary artery constriction, and thrombus formation, peripheral ischaemia, gangrene of extremities, arteritis, and vasculitis.
- **Infection**: Bacterial endocarditis may result from intravenous use of psychostimulants.
- **Skeletal muscles**: Rhabdomyolysis can occur secondary to hyperthermia, seizures and vasoconstriction, or as a direct effect of the drug. This can then lead to myoglobinuria and acute renal failure.
- **Respiratory tract**: Inhalation of cocaine can lead to asthma, gas exchange abnormalities, non-specific pulmonary oedema, pulmonary haemorrhage, and haemoptysis, due to vasoconstriction. Pneumothorax, pneumopericardium and pneumomediastinum may occur after free base smoking with deep, forced and prolonged inhalation. Sudden death can result from cardiac arrest.
- **Gastro-intestinal system**: Severe abdominal pain, bloody stools, bowel ischaemia and infarction, and even perforation has been reported from cocaine use.
- **Liver**: Cocaine and MDMA use has been associated with hepatic ischaemia, acute hepatitis, hepatic necrosis, and with MDMA, liver failure.

(Latt et al. 2002, pp. 129-131)

High doses, especially cocaine, can result in:

- Convulsions, cerebrovascular accidents—subarachnoid haemorrhage, cerebral haemorrhage, cerebral infarction, coma, and death.

(Latt et al. 2002, pp. 129-131)

**Chronic toxicity**

Chronic toxicity is manifested by:

- Nutritional: weight loss.
- Neuropsychiatric complications: poor concentration and attention, memory impairment, sleep disturbances, hallucinations, flashbacks (vivid sense of reliving the past drug use experience), depression, anxiety, and panic attacks. Suicidal ideation has also been reported.

Rhinorrhoea, nasal ulcers, epistaxis, sinusitis, and perforation of the nasal septal often manifest chronic intranasal cocaine use.

Chronic and/or excessive users of psychostimulants may present with an acute psychotic episode resembling paranoid schizophrenia (Latt et al. 2002, pp. 129-131).

**Binges or ‘runs’** involve repeated excessive use (multiple daily doses over several days). This can result in a psychotic state resembling acute paranoid schizophrenia characterised by:

- severe agitation
- anxiety
- restlessness
- paranoid delusions
- hallucinations—predominantly visual but can be auditory or tactile
- repetitive stereotypical behaviours
- hostility and violence
loosening of association and ideas in a setting of clear consciousness. Stimulant-induced psychosis is difficult to differentiate from acute paranoid schizophrenia. Cocaine-induced psychosis may progress to perceptual disturbances, delirium, paranoid delusions, and aggressive or violent behaviour. Psychotic symptoms generally subside soon after the drug use ceases some people may experience persistent symptoms for weeks or months (Latt et al. 2002, pp. 130-131).

Methylene dioxymethamphetamine (MDMA)
The medical management of acute MDMA intoxication is ‘… as for amphetamines and cocaine, with treatment of the symptom complexities as they emerge’ (Wickes 1993). There is a view that the drug dantrolene might be useful in the treatment of hyperthermia induced by the use of MDMA (Denborough & Hopkinson 1997; White et al. 1996). However, there remains limited evidence to support this being used for this purpose, and efficacy and timing of administration remain uncertain (Wickes 1993).

Acute complications from MDMA use unpredictable
Deaths have occurred from:
- hyperthermia
- disseminated intravascular coagulation
- hepatic failure
- acute renal failure secondary to rhabdomyolysis
- cardiovascular collapse.

Note:
- Hyperthermia is due to the CNS’ inability to reduce temperature once it has risen, and partly dependent on ambient temperature
- High ambient temperatures increase risk, while low temperatures may result in MDMA—induced hypothermia.
- Water intoxication and hyponatraemia may result from drinking large amounts of water without salt replacement and increased secretion of antidiuretic hormone.
- The possibility of psychostimulant use should be considered in a young adult presenting with seizures or a cerebrovascular accident (Latt et al. 2002, p. 129).

Nursing management of psychostimulant intoxication
(see Section 2.4: Managing Intoxication)
These guidelines are for the effective management of acute, uncomplicated psychostimulant intoxication. Nurse the person by:
- regularly checking vital signs, physical and psychological status
- interpreting drug screening urinalysis
- being calm and supportive
- ensuring a soothing environment—reducing environmental stimuli
- offering reassurance
- explaining what is happening and that it will pass
- avoiding confrontation and arguments
- creating a sense of security and confidence that the situation is under control
- providing food and fluids to maintain nutritional status and fluid balance
- administer adequate doses of diazepam to control agitation and anxiety
- administer Haloperidol to treat psychotic episodes where sedation is insufficient.
Always be alert for the possibility of complications or presence of medical illnesses/injuries that are either related or coincidental to the psychostimulant presentation.

For prevention and more effective treatment of acute intoxication and possible complications, identifying and treating symptoms needs to occur in a timely manner. This can include:

- administering sodium nitroprusside or phentolamine if the sedating effects of benzodiazepines are insufficient to control pulse and blood pressure in agitated people
- treating cardiac arrhythmias with cardio-selective beta blocker metoprolol or possibly with the non-selective beta blockers propranolol or labetalol
- utilising oxygenation, nitrates and combined alpha and beta-adrenergic blockade or calcium channel blockers for myocardial ischaemia and infarction
- using diazepam, phenobarbitone, phenytoin or possibly general anaesthesia to provide neuromuscular blockade to control seizures (some evidence that benzodiazepines are not entirely effective in preventing seizures and may not be effective at higher doses (Gowing et al. 2001, p. 29)
- implementing rapid cooling measures, sedation and hydration if body temperature rises above 39ºC
- providing regular creatinine kinase analysis, sedation, and full hydration of people at risk of rhabdomyolysis, and
- providing haloperidol or phenothiazines to reduce toxic psychosis.

(Wickes, W. 1993)

Other more general recommendations for the management of acute amphetamine or cocaine intoxication with complications include:

- observing fundamental principles of airway, breathing and circulation in the unconscious person
- assessing for any evidence of injury
- performing blood and toxicological screening to confirm or refute diagnosis and reveal the presence of any other drugs used
- administering intravenous Thiamine, glucose, and naloxone in the confused or unconscious person in the event that Wernicke’s Encephalopathy, hypoglycaemia or opioid overdose may be causing or confusing the presentation
- performing CT scans and lumbar puncture in the confused, unconscious, or otherwise neurologically impaired amphetamine or cocaine user.

(Wickes, W. 1993)

For a more detailed discussion of the above recommendations, as well as dosage, indications and contraindications of specific medications (e.g. as listed above), seek latest evidence and refer to Wickes (1993).

**Psychostimulant withdrawal**

Repeated and prolonged use of psychostimulants leads to marked tolerance, neuro-adaptation and dependence, and withdrawal on cessation.

Duration of acute withdrawal symptoms is associated with the type of psychostimulant drug used and its half-life, and duration of excessive use (e.g. one to four days for cocaine, up to about three weeks for amphetamines). Withdrawal from psychostimulants emerges between 8-20 hours after the last dose.

Withdrawal from cocaine or amphetamines is not life-threatening, but depression resulting from withdrawal can lead to suicidal ideation, self-harm and possibly death.
Cessation results in what is often referred to as the immediate phase—‘crash’—whereby the person will experience a range of intense CNS depressant-like symptoms with craving for sleep and feelings of exhaustion replacing craving for the drug (Gowing et al. 2001, p. 28).

Withdrawal is characterised by three phases: crash, withdrawal and extinction.

**Phase I—Crash**

The ‘crash’ (hangover) following cessation of psychostimulant use such as amphetamines lasts one to two days. This may be associated with a binge and may or may not progress to withdrawal.

Crash symptoms include:
- extreme lethargy
- hunger
- formication (feeling of crawling insects on skin)
- headache
- anxiety
- insomnia
- irritability
- agitation
- aggression
- confusion
- mood lability.

**Phase II—Withdrawal**

If neuro-adaption and dependence have developed the crash will be followed by the second phase—withdrawal. This will be associated with a period of normal moods, little craving for the drug, and normal sleep pattern for one to four days. However then dysphoria and craving for the drug start to increase again in conjunction with:
- flattened mood
- disturbed sleep
- agitation
- anxiety
- lack of energy.

Possible aggressive outbursts may return, and delusional (paranoid) thinking with hallucinations may occur. Craving for the drug can be intense.

**Phase III—Extinction (prolonged withdrawal)**

‘Extinction’ of withdrawal is characterised by gradual diminishing of the acute symptoms, and may last for weeks or several months. There can be episodic craving in response to environmental stimuli (cues) to use, and a feeling of anhedonia (inability to respond to pleasant events). The frequency of craving and the anhedonia does decrease over time, but likelihood of relapse is high.

**Management of withdrawal**

To date there is little reliable evidence of which medication regime is most effective for stimulant withdrawal management (there are currently studies, which will be reported later in 2003). Sound symptomatic treatment and good nursing are required.

Provide supportive care and safe environment.
- Nursing observations—four hourly. There is no validated tool for the assessment of severity of withdrawal from amphetamines. (See Appendix 8: Amphetamine
Withdrawal Assessment Scale, a tool currently used in South Australia which is in the process of being validated.)

- Provide self-help information (e.g. *Getting through amphetamine withdrawal* from Turning Point in Victoria or your local alcohol and drug information service).
- Monitor the stages of withdrawal and adapt nursing care to changing needs for sleep, food intake and mood changes (e.g. allow for sleeping during the day).
- Ensure adequate food and fluid intake, allow for hunger and increased appetite.
- Support and understanding during angry outbursts can assist the person to complete withdrawal.
- Monitor depressed mood to identify and prevent risk of self-harm.
- Give tips for coping with cravings, to improve sleep, relaxation, coping with mood swings, aches and pains, nutrition and strange thoughts focusing on the present.
- Identify high-risk situations and assist client to develop strategies to prevent relapse.
- Provide harm reduction information and strategies (e.g. safe injecting drugs, nutrition, management hydration).
- Ensure effective referral for after care and support post discharge.

(National Drug Strategy 1998)

**Pharmacological treatment**

Despite research to date, no broadly effective pharmacological therapy has been identified; some drugs such as buprenorphine and Fluoxetine may be effective for some groups (Gowing et al. 2001, p. ix) however, there is insufficient evidence to advocate the use of these drugs in psychostimulant withdrawal at this time.

There is no evidence so far that antidepressant therapy is effective for psychostimulant dependence alone; people with comorbidity such as dependence and depression may be assisted with Fluoxetine, and ‘lithium and stimulants may be effective in cocaine users with bi-polar disorders or attention deficit disorder, respectively’ (Gowing et al. 2001, p. xv).

Agitation, sleeplessness and aggressive outbursts may be controlled with short courses of a long-acting benzodiazepine such as diazepam, with judicious and usually low doses of a major tranquilliser, such as pericyazine 2.5-5mg three times a day (TDS), to help control marked agitation.

Various antidepressants and the newer generation anti-psychotics have been used in an attempt to decrease craving, particularly with cocaine use, to limited effect.

Other symptomatic relief medications may be prescribed (e.g. for headaches).

**Maternal and neonatal care**

**Effects**

Due to pharmacological properties, cocaine and amphetamines are likely to have similar effects in pregnancy.

Cocaine:

- causes vasoconstriction and hypertension, which may result in acute or chronic foetal hypoxia
- increased risk of miscarriage, pre-term labour, low birth weight, growth retardation, abruptio placentae, and still birth
- there may be other adverse effects due to drug impurity, unknown doses and presence of other substances.
Neonates

If cocaine or amphetamines are used close to the birth, the baby may be born intoxicated. Signs of intoxication can include hyperactivity and agitation including seizures. Babies may show behavioural disturbances such as:

- increased startle response
- abnormal sleep patterns
- withdrawal symptoms in the first few weeks after birth can include sleepiness and lack of responsiveness
- an increased risk of genito-urinary malformations in the foetus with cocaine.

There is no conclusive evidence that stimulant use by the mother causes specific malformations in the foetus.

Breastfeeding

- Breastfeeding is contraindicated while using psychostimulants.
- Cocaine use while breastfeeding has induced intoxication and seizures in infants.
- Breastfeeding should stop for seven days after cocaine use. Breast milk should be expressed and discarded for this period.

Seek specialist advice for pregnant women, mothers and babies who are at risk because of psychostimulant use.
3.5 **Cannabis**

### Introduction

After coffee, alcohol and tobacco, cannabis is the next favourite psychoactive drug in Australia. It is difficult to classify due to its mixture of mood, cognitive, motor and perceptual effects. It does not clearly belong to any other drug class (Todd et al. 2002, p. 141).

Cannabis is the generic name given to the psychoactive substances found in the marijuana plant *Cannabis sativa*. The main active constituent is Delta 9-tetra-hydrocannabinol (THC). The psychoactive effects of cannabis are caused by THC, and comprise a mixture of stimulant and depressant in low doses, and mainly depressant in high doses. Its major effects involve the central nervous and cardiovascular system.

### Assessment and quantification

Record the duration of use frequency, quantity, date and time of last use, positives and negatives and the person’s goals related to their use.

Cannabis is difficult to quantify. State the method of administration (e.g. joint, eaten, bong), whether it is a leaf, heads or hash and how much the person uses (i.e. how many cones/joints) on a daily basis. It is sometimes helpful to ask how much money the person spends on the quantity of cannabis per week (e.g. one ounce a week, divided by the number of days they use).

Psychosis may be induced by the use of cannabis in prone individuals.

### Long-term health effects

As with tobacco smoking, cannabis smoking holds an increased risk of respiratory disease (e.g. cancer, asthma, chronic bronchitis and emphysema). These may be problems related to attention, concentration and memory and motivation.

### Cannabis intoxication

#### Time of onset and duration of effects

When smoked, THC is delivered rapidly into the bloodstream with plasma peaks at end of smoking, and falling to low levels within two hours, lasting for up to four hours. The effect of one bong/joint may last 3-5 hours.

THC is stored in fat cells thus producing an accumulating effect over time. THC is the metabolite measured in blood or urine and is inactive, merely confirming that cannabis has been used at some time recently (e.g. in last few weeks), and does not confirm or refute intoxication.

Tolerance and neuro-adaption occur with prolonged, regular use, resulting in dependence and withdrawal will occur on cessation—even though not listed as a diagnosis in the DSM IV.

It has been estimated that two ‘joints’ (cannabis cigarettes) a day for three weeks is sufficient to induce neuro-adaption and withdrawal on cessation.

Relatively weak effects on cardiovascular, respiratory and thermo-regulatory systems. Usually only results in a slight increase in heart rate to about 20bpm above base line.
Acute effects include:

- euphoria
- relaxation
- sleepiness
- hunger (munchies)
- feeling of wellbeing
- perceptual distortions (e.g. sharpened senses and altered sense of time)
- impaired memory, cognition and skill task performance even though person feels creative and confident
- depersonalisation.

Physical effects include:

- raised pulse (increase by approx 20bpm above baseline)
- vasodilation (especially conjunctiva—red eyes)
- orthostatic hypotension
- reduced intra-ocular pressure
- bronchodilatation
- anti-emetic
- muscle relaxant
- analgesia
- anticonvulsant effects.

Acute toxicity can result in:

- anxiety
- confusion
- panic attacks
- persecutory delusions
- visual hallucinations
- overt psychotic reactions in vulnerable people
- impairment short term memory and attention
- impairment of motor skills, reaction time, ability to perform skilled tasks.

A short-lived psychotic state can occur associated with use of high doses (e.g. hydroponically grown cannabis). This generally resolves within a week after cessation of cannabis.

Cannabis-induced psychosis can be difficult to distinguish from precipitation of a psychosis in those with a predisposition to mental illness. (Todd et al. 2002, pp. 142-145)

Management of cannabis intoxication
(See Section 2.4: Managing intoxication.)

Cannabis withdrawal
(See Section 2.6: Managing withdrawal.)

The withdrawal syndrome may be relatively mild or severe, but is not life-threatening. The most common symptoms are:

- anxiety
- sleep disturbances (e.g. insomnia)
- restlessness
- mild depressive features
- panic attacks
- nightmares
- headaches
• anorexia
• irritability (these may persist, in sub-acute forms, for several weeks to months)
• mood swings (anger outbursts).

Withdrawal observations

There is currently no validated assessment tool for monitoring the severity of cannabis withdrawal.

(See Appendix 9: Cannabis Withdrawal Assessment Scale currently being trialed by DASC in South Australia.)

Provide self-help materials, such as Effective weed control: working with people to reduce or stop cannabis use; Getting through marijuana withdrawal; Marijuana: a guide to quitting. Go to: http://www.turningpoint.org.au for your local alcohol and drug information service (see ‘List of contact numbers’ in the back of this book).

Some people may use cannabis while in hospital for other reasons. Non-punitive behavioural management plans or admission contracts negotiated with the person may assist in clarifying what is acceptable behaviour/boundaries.

Pharmacological management of cannabis withdrawal

A short course of diazepam (e.g. 5-20mgs four times a day as necessary) may be useful, particularly with severe agitation and aggression or insomnia. A low dose major tranquiliser (e.g. pericyazine 2.5-5mgs three times a day with Cogentin) may be given for marked anxiety.

Maternal and neonatal care

Possible effects

The smoking of cannabis during pregnancy is not recommended. (Refer to Section 3.6: Tobacco.)

Breastfeeding

THC is found in the breast milk of mothers who use cannabis and can cause gastrointestinal irritation in babies; however, research shows that breastfeeding is preferable for both mother and baby.
3.6 Tobacco

Introduction
Tobacco is the major cause of drug-related deaths in Australia.
There are over 4000 chemicals in tobacco smoke, many of which are poisonous, and 43 that have been proven to be carcinogens. These chemicals include nicotine, tar and carbon monoxide.

Nicotine
Nicotine is the short-acting psychoactive drug in tobacco that causes addiction among smokers. The strength of addiction is said to be as powerful or more so than that of heroin. Nicotine is a poison. Swallowing one drop of pure nicotine can kill an adult.

Tar
When a cigarette burns, tar is released. Tar is the main cause of lung and throat cancer in smokers.

Carbon monoxide
Carbon monoxide is a colourless, odourless and very toxic gas, which is taken up more readily by the lungs than oxygen. High levels of carbon monoxide in the blood is typical of smokers and, together with nicotine, increases the risk of heart disease, hardening of the arteries and other circulatory problems.

Assessment and quantification
All smokers need assessment, information and education about the risks of smoking. All smokers should be encouraged to cease smoking, or at least greatly reduce their intake. A person who is dependent on nicotine will experience withdrawal symptoms when they cut down or stop smoking. These can include increased nervousness and tension, agitation, loss of concentration, changes to sleep patterns, headaches, coughs and cravings.

Assessment
Tobacco consumption is measured by the actual number of cigarettes smoked per day (not the number of packets). The strength of cigarettes (i.e. the tar content and nicotine level) is also important to record.

Record the duration of use, frequency, quantity, date and time of last use, positives and negatives and the person’s goals related to their tobacco use. These questions are useful in identifying nicotine dependence. Does the person:

- smoke 10-15 or more cigarettes a day?
- smoke their cigarette within 30 minutes of rising?
- experience craving or withdrawal symptoms when trying to give up?

A yes answer to any of the above have been reliable in identifying nicotine dependence (McLean, Richmond, Lopatko et al. 2002, pp. 111-112).
Effects of cigarette smoking
The effects of smoking will vary from person to person and depend on such things as:
- a person’s susceptibility to chemicals in tobacco smoke
- the number of cigarettes smoked per day
- the age when the person began smoking
- the number of years of smoking.

Immediate effects of cigarette smoking
- smoking one cigarette immediately raises a person’s blood pressure and heart rate and decreases the blood flow to body extremities
- brain and the nervous system activity is stimulated for a short time and then reduced
- a smoker may also experience dizziness, nausea, watery eyes and acid in the stomach
- appetite, taste and smell are weakened
- paralysed cilia in lungs and airways
- kidneys produce less urine.

Long term effects of cigarette smoking
- smokers typically experience shortness of breath, persistent coughs, reduced fitness, yellow stains on fingers and teeth and decreased sense of taste and smell
- smokers have more colds and flu than non-smokers and find it harder to recover from minor illnesses
- smoking can cause impotence in men, while women who smoke are less fertile than non-smokers
- people who smoke tend to have facial wrinkles appearing much earlier and, in general, look older than non-smokers of the same age
- respiratory infections such as pneumonia and chronic bronchitis
- emphysema, a progressive and potentially fatal lung disease
- heart attack and coronary disease
- cancer of the lung, throat, mouth, bladder, kidney, pancreas, cervix, stomach
- stomach ulcers
- peripheral vascular disease due to decreased blood flow to the legs
- increased risk of infertility
- may inhibit some symptoms of Parkinsons disease
- narrowing/hardening of blood vessels, particularly heart / lungs.

Other risks of cigarette smoking
- smoking during pregnancy can affect the unborn child and babies are more likely to be born underweight, premature or stillborn
- passive smoking, where a person is subject to breathing in the cigarette smoke of others, can cause lung damage, including cancer and heart disease
- 50 Australians die every day from smoking compared to 10 who die from alcohol-related conditions or four who die from road accidents.

Benefits of smoking cessation
There are immediate benefits at any age. For example, within a week:
- nicotine and carbon monoxide out of the system
- lungs working more efficiently
- taste buds functioning better
- sense of smell improves
- breath, hair, fingers, teeth, clothes cleaner
Within three months:
- blood flow to the hands and feet improves.

After twelve months:
- the risk of cancer and heart disease is reduced.

(Australian Drug Foundation 2003)

For support and information contact QUIT (131 848) for free self-help materials—books, videos, courses and a telephone counselling service.

Abstinence rates from nicotine replacement therapy (pharmacotherapy) are much higher for hospital patients, community volunteers, people attending smoking clinics, than others in the community (Ivers 2001, p. 59). This means that nurses and midwives have a major role in assessing for and assisting hospital patients and other clients who wish to cease tobacco use through nicotine replacement.

**Early/brief intervention**
(See Section 2.3: Early and brief intervention.)

Discussion about times, places and other triggers for smoking can help identify the cues to smoke and enable the smoker to start developing strategies to overcome these and begin self management, cessation and relapse prevention.

The following strategies can be used to combat craving when giving up smoking:
- delaying the next cigarette by five minutes
- deep breathing instead of lighting a cigarette
- distracting oneself by doing something else at ‘trigger’ times—for example, going for a walk at morning tea instead of having coffee with friends if this is a usual time for a cigarette, meeting a friend at the movies instead of having a drink and a cigarette after work, changing beverages commonly combined with smoking (e.g. substituting tea with juice)
- drinking a glass of water when a craving starts.

While giving up is the only effective strategy against tobacco-related harm, there are some measures that can reduce the harm if the person is not yet ready to stop. These include smoking fewer cigarettes and having the first cigarette later in the day as a way of cutting down.

The Quitline is a 24-hour national service and provides ongoing support and self-help information phone.

**Tobacco withdrawal**
(see Section 2.6: Managing Withdrawal)

Nicotine withdrawal occurs when the dependent smoker reduces intake or stops smoking.

**Signs and symptoms**

Nicotine withdrawal starts a few hours after last intake and peaks at between 24 - 72 hours.

While not life-threatening, it is characterised by a set of symptoms including:
- increased nervousness
- irritability
- tension, agitation
- loss of concentration
- changed sleep pattern
- headache
• cough
• stomach upsets
• bowel disturbance
• muscle spasm
• changes in taste buds
• craving.

Management of tobacco withdrawal
Provide support and self-help information. The person may wish to use patches or gum as pharmacological assistance in managing withdrawal through gradual cessation.

Pharmacological management

Nicotine replacement therapy (NRT)
NRT comes in various forms, e.g. nicotine patches, nasal spray, nasal inhaler, and gum. NRT is useful for people who are dependent on nicotine, motivated to reduce and cease use and are free from medical contraindications.

Nurses should explain why and how NRT could be beneficial as well as discussing possible side effects.

Possible side effects of NRT
• The most common side effects are skin reactions (transient itching, burning and tingling), occurring in up to half of nicotine replacement therapy users. These are usually minor and relieved by rotating the patch site on the skin.
• Some skin reactions can be more serious, e.g. dermatitis or skin sensitisation—and may require cortisone or cessation of nicotine replacement therapy.
• Most skin reactions tend to occur after three to four weeks of use.
• Most common systemic side effects are disturbed sleep and vivid dreams, however these do not occur using the 16-hour patch.

The 24-hour patch can be removed at bed time, or a lower strength patch can also be used to reduce sleep difficulties.

Absolute contraindications to NRT
• recent acute myocardial infarction
• unstable angina pectoris
• severe cardiac arrhythmia
• recent cardiovascular accident
• pregnancy and lactation.

Relative contraindications to NRT
• stable ischaemic heart disease, peripheral vascular disease or cerebrovascular disease
• psoriasis, eczema, urticaria
• hyperthyroidism, insulin dependent diabetes mellitus, phaeochromocytoma
• liver or renal disease
• peptic ulcer.

Zyban (Bupropion Hydrochloride)
Non-nicotine based therapy: an atypical antidepressant known as bupropion (Zyban).
Zyban is used as a short term adjunct in the treatment of nicotine dependence in people over the age of 18 years, within a comprehensive treatment program where the goal is abstinence.
Combination NRT such as patches supplemented with bupropion (Zyban) or nicotine gum can relieve intermittent craving. The combination of patch and gum decreases withdrawal symptoms more than either alone (McLean et al. 2002, p. 116).

**Absolute contraindications for bupropion (Zyban)**
- history of seizures
- central nervous system tumour
- abrupt alcohol or benzodiazepine withdrawal
- bulimia or anorexia nervosa
- concurrent use of monoamine oxidase inhibitors (MAOIs).

**Relative contraindications for bupropion (Zyban)**
- lowered seizure threshold
- renal impairment
- hepatic impairment
- bipolar disorder
- latent psychosis
- concurrent nicotine replacement therapy
- elderly or children
- pregnancy or lactation.

**Possible side effects**
- headache
- flushing
- tachycardia
- hypertension
- central nervous system disturbances (including insomnia)
- impaired concentration
- anxiety
- depression
- seizures
- anorexia
- gastrointestinal upset
- dry mouth
- rash
- fever
- taste disorders.

**Maternal and neonatal care**
There are significant risks from smoking/nicotine to maternal health generally (as for any smoker) and particularly during pregnancy. There are also significant risks to the foetus and newborn.

Smoking contributes to increased rates of low birth weight, incidence of spontaneous abortion, prematurity and sudden infant death syndrome (Surgeon General 1990), and a higher rate of ectopic pregnancy (English, Holman, Milne 1995, pp. 416-418).

**Possible adverse effects to mother and baby**
- pregnancy complications, including ectopic pregnancy, miscarriages, stillbirth, placental problems, bleeding during pregnancy and premature birth
- low birth weight
- increased foetal heart rate, decreased foetal movements
- impaired ‘rehearsal breathing’ in the foetus
- respiratory complications and middle ear infections in the baby’s first weeks
• later asthma, possibly related to passive smoking effects
• sudden infant death syndrome (‘cot death’).

**Breastfeeding**

• Tobacco smoking reduces breast milk supply and nicotine is present in breast milk. This can cause gastric irritation in the baby; however, research suggests that breastfeeding is still safer for both mother and baby.
• Smoking is best avoided prior to and during feeds and around a feeding infant. Following a cigarette, at least 20 minutes should elapse before feeding.
3.7 **Hallucinogens**

**Introduction**
Hallucinogens (also known as psychedelics) include naturally occurring compounds and synthetic chemicals. They produce distortion in thoughts, mood and perceptions—typically inducing illusions or hallucinations. They are most commonly used ‘once off’ or recreationally in social settings such as homes, dance parties, rave parties, clubs and pubs. These drugs are not usually associated with dependence arising from long-term, high-level use.

There are a number of drugs that come into this category. They include lysergic acid diethylamide (LSD), phencyclidine (PCP), psilocibin (magic mushrooms).

**Note:** MDMA (ecstasy) and methylene dioxy-amphetamine (MDA) are psycho-stimulants that also have hallucinogenic properties.

**Assessment and quantification**
Quantification of hallucinogens is difficult because purity and actual ingredients are uncertain.

In assessing hallucinogen use, ask how often the person uses the substance, what they think the substance is, the dollar cost of the drug, how much extract, fibre (e.g. mushrooms or Datura), or how many tabs are used.

Record the duration of use, frequency, quantity, and date and time of last use, positives and negatives and goals related to their use.

Record how long the person has been using the drug.

**Hallucinogen intoxication**
Signs of intoxication:

- altered perception, thought, emotions
- unusual and vivid perception of shapes, colours, sounds
- blurred boundary between self and surroundings
- feeling of detachment, one part of self passively observes the other part experiencing psychedelic illusions
- dizziness
- weakness
- nausea.

In some cases users can experience pronounced mood swings—detachment may alternate with fear, paranoia, distress and panic. The nurse will need to provide reassurance and supportive care so such people do not injure themselves or others during a panic episode (this episode usually ends when the drug wears off).

**LSD Intoxication**
Subjective effects of LSD typically peak several hours after ingestion. While pleasant, it can induce dysphoric experiences. LSD:

- is absorbed orally and difficult to detect in the blood
- causes high level tolerance to behavioural effects after three to four daily doses but this dissipates with abstinence
- involves less tolerance to cardiovascular effects
has cross-tolerance between LSD, mescaline and psilocybin; but none with amphetamines or its derivatives, anticholinergics, ketamine or phencyclidine (PCP).

**Acute toxicity**

*Somato toxicity—sympathomimetic*

- pupillary dilatation
- increased blood pressure
- tachycardia
- hyper-reflexia
- tremor
- nausea
- piloerection
- muscular weakness
- increased body temperature.

*Non-sympathomimetic effects*

- dizziness
- weakness
- drowsiness
- nausea
- paresthesia
- emotional lability

**Chronic toxicity (largely unknown)**

- flashbacks (like drug effects, some time after use of drug); may persist for years after use depending on the number of magnitutude of doses the person has taken over the previous months or years. Flashbacks are precipitated by a number of factors including cannabis use, anxiety and fatigue.
- may cause reduced capacity for abstract thinking with repeated use.

(White et al. 2002, pp. 229-231)

**Psilocybin (magic mushrooms) Intoxication**

Effects from an oral dose (e.g. 0.2mg/kg) develop in 30 minutes after eating mushrooms or five minutes after drinking extract. These last for 4-8 hours and are followed by drowsiness and sleep.

Can produce symptoms that resemble psychosis

**Acute toxicity**

Active ingredients in these mushrooms cause CNS and cardiac toxicity.

**Common effects of lower dose:**

- agitation
- panic attacks
- psychosis
- ataxia

**Chronic toxicity**

As magic mushrooms are seasonal and not usually taken on a regular long-term basis, chronic toxic effects have not been well documented in humans.
Phencyclidine (PCP)

PCP was briefly used as a dissociative anaesthetic but delirium and hallucinations during recovery were troublesome. (Hulse, White & Cape, 2002, p. 234).

There have been very few reports of PCP use in Australia.

Intoxication

PCP can be smoked, swallowed, snorted or injected.

Onset of effects varies in relation to method of use. Effects depend on dose taken.

Typical duration of action is 4-6 hours but may be much longer following high doses.

The half-life for PCP is 7-16 hours.

Acute toxicity:

Common effects of lower dose:

▪ may resemble alcohol intoxication
▪ ataxia
▪ slurred speech
▪ nystagmus
▪ numbness of extremities
▪ euphoria
▪ disorientation
▪ depersonalisation and a sense of detachment from one’s body

Prominent symptoms of higher dose:

▪ distorted sensory processing
▪ disorganised thinking
▪ drowsiness
▪ apathy
▪ hostile and bizarre behaviour
▪ marked anaesthesia and catatonic-like muscular rigidity
▪ increased heart rate and blood pressure
▪ hypersalivation
▪ sweating
▪ fever
▪ myoclonus
▪ convulsions
▪ respiratory depression
▪ coma.

Note: Lowering urinary pH (acidification) speeds up excretion of PCP.

▪ Other symptoms reported have been sinus tachycardia, arrhythmias, hypotension, and bradycardia.

▪ Altered pupils, nystagmus, decreased pupillary light reflexes, absent corneal reflexes, and bilateral ptosis may occur at any level, and are usually accompanied by cholinergic symptoms such as dilated pupils, hypersalivation, sweating and flushing.
Chronic toxicity

Chronic effects are not well known.

There is some evidence of adverse changes such as chronic psychotic sequelae in the form of organic brain dysfunction and/or behavioural effects that may manifest as:

- Personality changes
- Persistent difficulties with memory, speech and thinking
- Flashbacks have been reported

(White et al. 2002, p. 234)

MDMA (ecstasy), MDA (Adam) and MDE (Eve)

These drugs are related to amphetamines and have hallucinatory and stimulant properties. They cause pleasant emotional effects, euphoria and increased energy.

Autonomic effects are:

- hypertension
- tachycardia
- hyperthermia
- possible toxicity to serotonergic neurones.

(White et al. 2002, p. 231-232)

(See Section 3.4: Psychostimulants for further information and ‘Management’.)

Nursing management

(See Section 2.4: Managing intoxication.)

Hallucinogen overdose

Overdose from hallucinogens is rarely seen. However, death due to overdose in animal studies resulted from respiratory failure and hyperthermia.

Hallucinogen withdrawal

There is no evidence of a withdrawal syndrome from hallucinogens even after abrupt cessation or substantial reduction in their use.
3.8 Solvents (inhalants, volatile substances)

Introduction
Solvents are also known as ‘inhalants’ or ‘volatile substances’, and are products that vaporise in the air, causing a ‘high’ feeling when the fumes are inhaled. The term ‘glue-sniffing’ ('huffing') is commonly used to cover all forms of inhalants. The product is inhaled through the nose or mouth. It is often sprayed into a plastic bag or soaked onto a cloth or sleeve and then inhaled. It can also be inhaled directly from the container or a cool drink bottle.

This group includes gases (e.g. nitrous oxide) and highly volatile compounds or mixtures of compounds (petrol, paint— ‘chroming’, glues, and aerosol propellants, paint thinners).

Assessment and quantification
Record the frequency, quantity, date and time of last use, positives and negatives and goals related to their use.

Quantification of solvent use is extremely difficult. Record how often the person uses, what type of solvent is used and how many times it is inhaled in a session. If the solvent comes in a container, record how much is left.

Solvent intoxication
While individual components of compounds can differ in their effects, the overall action of most solvents is depression of the central nervous system. If high doses are inhaled, they can cause coma and death.

Onset of solvent action is very quick and the central nervous system impairment generally clears within a few hours of inhalation.

Effects of solvents
Solvent intoxication resembles alcohol intoxication. Initial exhilaration and euphoria is followed by:

- slurred speech
- ataxia
- drowsiness
- dizziness
- increased salivation
- nausea
- vomiting
- confusion
- disorientation
- perceptual disorders
- nasal erosion or irritation
- tachycardia
- rash (around nose and mouth)
- weight loss
- physical health problems
- tinnitus
- increased heart rate.
In some cases hallucinations and delusions accompany these symptoms. People may harm themselves (accidentally or intentionally), destroy property or attack others. Very high doses can result in convulsions.

Solvents induce respiratory depression and cardiac arrhythmias, which can be fatal. ‘Sudden sniffing death’ has been recorded. People who sniff leaded petrol can also present with lead poisoning.

**Nursing management**
(See Section 2.4: Managing intoxication.)

Manage intoxication using the following:

- If a person is found in the act of inhaling solvents, do not frighten or startle them. Approach in a very calm manner, as sudden movements by the person (e.g. running) can cause severe cardiac arrhythmias or cardiac arrest.
- Do not chase the person as this may increase the risk of respiratory arrest.
- Remove the inhalant and ensure the person has plenty of fresh air. (However, do not remove inhalant if person is overly agitated or aggressive.)

**Solvent overdose**
(See Section 2.5: Managing overdose.)

Solvent overdose is rare. Toxicity varies greatly, depending on the substance. Generally, signs are cardiac arrhythmias, hypoxia, and neurological impairment.

Education of client, family and friends in the emergency care of the unconscious person and cardiopulmonary resuscitation wherever possible may assist in preventing death.

**Solvent withdrawal**

There is no evidence of a withdrawal syndrome on cessation or reduction of use.
3.9 **Ketamine**

**Introduction**

Ketamine is often called *K*, or *Special K*. The effects of ketamine appear subjective depending on individual characteristics of the user and setting in which it is used. Ketamine is a drug with multiple mechanisms of action, but the degree to which each contributes to the different effects experienced through the use of ketamine is not clear (White & Ryan 1996). Ketamine is used mainly for its euphoric effect.

Ketamine is a dissociative anaesthetic that has stimulant properties when taken in low doses.

Ketamine is commonly swallowed, snorted, smoked or injected.

**Drug combinations and interactions**

The effects of a drug can never be assured. When more than one drug is used the effects can be more extreme and unpredictable. Mixing drugs may result in a “come-down” period being more severe and feelings of depression and anxiety may last for weeks instead of a few days. (MDECC 2001).

Ketamine and alcohol can act together and increase the effect of each other and increase potential for drug related toxicity and overdose. (MDECC 2001).

Drugs that appear to have opposite actions, e.g. stimulants and depressants seem to cancel out each other. However, drug combinations place stress on a body that is trying to maintain a functional balance. (MDECC 2001).

**Assessment and quantification**

(See Section 2.2: Assessment.)

**Ketamine intoxication**

**Acute Effects**

Peak effects depend on route of administration, and occur from 30 seconds (IV) to 20 minutes (oral) after usage. Duration of effect is typically 1-3 hours. The half-life is three hours (White et al. 2002).

Potential dangers of ketamine use are drug-induced psychosis, violence, accidents and marked psychomotor and cognitive impairment (White & Ryan 1996).

Use of ketamine can produce a range of schizophrenic-like symptoms, including:

- flattened effect
- thought disorders
- depersonalisation
- catatonia.

(White et al. 2002)
Short term effects at low doses can produce a state resembling alcohol intoxication with:

- ataxia
- euphoria
- slurred speech
- nystagmus
- numbness of extremities
- cardiovascular and respiratory stimulation.

At higher doses the predominant acute effects include:

- sweating
- drowsiness
- hypersalivation
- fever
- myoclonus
- blurred vision
- apathy
- dissociative ‘out of body’ sensations (flying or floating)—detachment from immediate environment
- muscle rigidity
- reduced response to pain
- risk of respiratory collapse and failure
- feelings of aggression
- hostile and bizarre behaviour
- stimulation
- disorganised thoughts
- temporary paralysis
- hallucinations (distorted sensory processing)
- euphoria
- seizures
- confusion and disorientation
- coma.

Longer term effects:

- weight loss
- loss of appetite
- flashbacks
- possible memory, attention and vision impairment
- possible psychological dependence
- possible development of tolerance to some behavioural and toxic effects.

(White et al 2002)

Physical dependence can occur (Shapira 1992, p. 7).

Nursing management of ketamine intoxication

(See Section 2.4: Managing intoxication.)

Nursing interventions are the management of symptoms arising from the drug and its effects and/or the effects of the use of more than one drug.
Harm minimisation information:

- Don’t mix drugs including prescribed medication, alcohol, herbal preparation, caffeine and antidepressants.
- Trying to counterbalance one drug with another does not work and taking more drugs to try and do this is likely to place the person at greater risk of toxic overdose and intensify the ‘come-down’ period.
- Avoid using caffeine, such as guarana and other caffeine-based drinks due to risk of dehydration.

Ketamine overdose

Possible symptoms of ketamine overdose

- respiratory depression may occur where there has been rapid intravenous administration, but can occur in slower administration
- hyperthermia
- seizures may occur in people with known seizure disorders (literature reports that ketamine use may induce or terminate seizures).

(White & Ryan 1996)

Nursing management of ketamine overdose

(See Section 2.5: Management of overdose.)

Ketamine withdrawal

(See Section 2.6: Managing of withdrawal.)

Abrupt withdrawal can occur after cessation of long-term daily use. (White et al. 2002)

Symptoms:

- fear
- tremors
- facial twitches
- craving
- animal studies show seizures, irritability and weight loss during ketamine withdrawal.

Maternal and neonatal care

Little is known of the effect of ketamine during pregnancy.

The use of ketamine during pregnancy is not recommended.
3.10 Gamma hydroxybutyrate (GHB)

Introduction
Gamma hydroxybutyrate (GHB) is known as fantasy, grievous bodily harm, GBH, liquid E, liquid ecstasy, and liquid X.
GHB is a central nervous system depressant with similar action to benzodiazepines. Its effects are known to be highly dose dependent.
GHB is used mainly for its euphoric effect.
In high doses, profound sedation and seizures can occur (Cape et al. 2002, p. 212).

Drug combinations and interactions
Polydrug use is common. It is known that many people who use drugs use more than one at a time eg. combining alcohol with amphetamine, heroin or benzodiazepines or hallucinogens.
The effect of any drug can never be assured, and the effects of more than one drug used in combination can be extreme and unpredictable. Mixing drugs can result in effects being more exaggerated for example extreme depression and anxiety, and these may last for weeks instead of a few days. (MDECC 2001).
Drugs may interact thus increasing the effects of each other with an increased potential for toxicity and overdose eg. GHB and heroin; GHB and alcohol; and GHB and any other CNS depressant. (MDECC 2001).
Drugs when combined may potentiate the effects of each or have synergistic effects with unpredictable outcomes.

Assessment and quantification
See Section 2.2: Assessment.
Particular attention needs to be paid to the types of drugs the person may have used in combination with GHB. Where other CNS depressants (particularly alcohol, opioids) have been used, the person may need close monitoring to identify risks related to CNS depression.

GHB intoxication

Effects
Short-term effects (low dose) include:
- euphoria
- relaxation and tranquillity
- calmness
- drowsiness
- dizziness
- increased sociability
- decreased inhibition
- enhanced sense of touch
- nausea
- increased confidence
- placidity
• tendency to verbalise
• blurred vision
• sweating
• hot/cold flushes.

Short-term effects (high doses) include:
• rapid onset intense drowsiness
• aggression if stimulated despite near respiratory apnoea
• impaired movement and speech
• uncontrollable twitching
• disorientation/confusion
• agitation
• vomiting and nausea
• hallucinations
• muscle stiffness
• seizures (myoclonic)
• coma of short duration
• respiratory collapse/arrest
• death.

Long-term use:
Little is known of the consequences of long-term use.
• high abuse potential
• potential for physical and psychological dependence.

Nursing management of GHB intoxication
(See Section 2.4: Managing intoxication.)
Nursing interventions are the management of symptoms arising from the drug and its effects and/or the effects of the use of more than one drug.

Harm minimisation information:
• Do not mix drugs including prescribed medication, alcohol, herbal preparation, caffeine and antidepressants.
• Polydrug use to control the effects of one or another drug is dangerous and can place the person at greater risk of toxic overdose and intensify the ‘come-down’ period.
• Do not mix GHB with HIV medications as effects are increased.
• Avoid using caffeine, e.g. guarana, caffeine-based drinks due to risk of dehydration.
• Avoid using alcohol with GHB due to the potentiation of CNS depressant properties.

GHB overdose
Concurrent use of alcohol or other CNS depressants is common in GHB overdose.
People typically regain consciousness spontaneously within five hours of ingestion.
GHB overdose should be considered in any case of unexplained sudden coma, i.e. without any evidence of head injury, intake of coma-inducing drugs or increasing intracranial pressure (Louagi et al. 1997).

Symptoms
• decreased level of consciousness/coma
• acute delirium
• severe respiratory depression
• hypothermia
• respiratory acidosis
• vomiting
• hypotension (occasionally)
• bradycardia.

**Nursing management of GHB overdose**
(See Section 2.4: Managing overdose.)

**Medical management of GHB overdose**
Atropine may be used for persistent symptomatic bradycardia (Li et al. 1998).
Neostigmine may be considered as a reversal agent (Li et al. 1998).
One study of a small sample of cases reported reversal with administration of a low dose of physostigmine (Caldicott & Kuhn 2001).

**GHB withdrawal**
(See Section 2.6: Managing withdrawal.)

**Date rape and GHB**
GHB has been implicated in cases of date rape. If someone believes their drink has been spiked, a urine screen undertaken as soon as possible can assist in gaining evidence for the person’s suspicions and may also assist police in any investigations that may need to occur.
Any person who reports a period of unconsciousness or amnesia and is confused as to what has recently happened may have been raped or assaulted. They need to be assessed for symptoms of GHB intoxication, and adverse effects of polydrug use (e.g. with alcohol).
Because of its CNS depressant effects, and the possibility of polydrug use, combined use of GHB with opioids or other depressant including alcohol and benzodiazepines is highly dangerous and can result in toxicity, overdose and death.

**Prevention of drink spiking**
The following strategies can be given to people to assist them to prevent their drinks from being spiked:
• buy your own drinks
• watch your drink being poured or pour your own
• never accept a drink from a stranger
• never leave your drink unattended
• don’t drink your drink if it tastes funny, different or more bitter than usual
• avoid getting drunk, remain in control and be aware of what is happening around you
• drink sensibly, stay safe.
An early sign of spiking is feeling intoxicated to a level that is not in keeping with the amount of alcohol you have had. If you believe you or your friend’s drink has been spiked:
• stay with your friend
• alert bar staff or other responsible person
• seek medical help as required
• notify police of the incident.

**Maternal and neonatal care**
Little is known of the effect of GHB on pregnancy.
The use of GHB during pregnancy is not recommended.


### 3.11 Anabolic androgenic steroids (AAS)

#### Introduction
Illicit steroids are available on the black market and are usually veterinary preparations. Users of anabolic steroid users may not consider themselves as illicit drug users, and often have tertiary qualifications, are in well paid jobs, in stable relationships and are generally older than other illicit drug users. Many steroid users are health conscious, some to the point of obsession, and use of other illicit drugs is low. Some groups may also use psychostimulants. Steroid users tend not to access health programs and messages aimed at illicit drug users, e.g. harm reduction information related to injecting drugs, even though this group is at risk (Henry-Edwards et al. 1999). Counterfeit steroids (AASs) are sold from time-to-time, with variable dose, constituents, quality and safety. Steroid users may have a distorted ‘body image’, often described as a reverse anorexia, where they see themselves as underweight or ‘puny’ (NSW Health 2002). Steroid users may use AASs in combination with other medical drugs, e.g. growth hormones, reproductive hormones, diuretics, beta two agonists, thyroxin, insulin, creatine monohydrate. Oestrogen antagonists may be used to reduce unwanted side effects, and medical indications for the use of AAS are limited (Henry-Edwards et al. 1999).

#### Definition
AASs are synthetically modified derivatives of testosterone available in oral or parenteral form. Anabolic substances are those that have the ability to synthesise body tissue and increase muscle mass and/or strength. Androgenic substances promote the development of male sexual characteristics.

#### User groups
Steroids may be used to enhance performance in sport, enhance physique in various occupations, or enhance body image. Groups identified who may use steroids include:
- body builders and power lifters
- gymnasium users
- track and field athletes and swimmers
- adolescent males
- martial arts athletes
- footballers and other sportsmen and women
- motorcyclists
- occupational groups (e.g. security/crowd controllers, firemen, army personnel, police)
- actors, models
- manual labourers
- male sex workers
- amphetamine or heroin users wishing to regain weight loss as a result of their other A&OD use. (NSW Health 2002; Henry-Edwards & Ali 1999)
Purpose for use
People use steroids for many reasons. These include:

- pursuit of body excellence
- improved athletic performance
- capacity to train at high levels—high intensity workouts with rapid recovery, diminished fatigue
- increased strength
- lean muscle mass
- heightened libido
- a sense of well being
- sexual arousal
- social acceptability amongst peers.


Forms of anabolic steroids
Pharmaceutical steroids are prepared for human use and are only available on prescription.

Steroids with high anabolic effects are preferred, and steroids with androgenic effects should be avoided

Water based, e.g. Stanazol
The water and steroid is rapidly absorbed and more rapidly excreted then oil-based steroids, may have to be administered twice a week, and is often used with a 23-gauge or 21-gauge needle, as the powder in the suspension can clog a narrower needle.

Oil based, e.g. Deca 50
Oil-based preparations take longer to be absorbed and take effect, and can be effective for longer than water-based steroids, e.g. two to three weeks. Some people may use them more frequently than every two to three weeks. Oil-based steroids are usually used with a 25-gauge needle.

Tablets, e.g. Anapolon 50
The effects of this form of steroid are short-acting, and are often taken twice a day. Tablets are generally associated with more adverse side effects due to the pharmacokinetics of this drug the ‘first pass’ is through the digestive system, where the steroid may lose some of its potency, and can cause liver damage.

Some steroid tablets have a coating that is designed to prevent it from being destroyed by acidity in the stomach, and these are categorised as C-17 alphalkylated and the coating used is toxic to the liver.

Anapolon may be more toxic than injectable steroids but this is as yet unclear.

Administration regimes of AAS
There is a common practice amongst steroid users of drawing up the drug from the same vial, thus increasing their exposure to blood-borne viruses. This occurs in a context of disbelief amongst this group who tend to perceive themselves as different from other groups of drug users and therefore ‘immune’ (Hulse et al. 2002).

There is no scientific evidence demonstrating the superiority in effect or safety of one form of administration over another, such as oral versus injectable. The ‘evidence’ that exists appears to be anecdotal in origin.
Common terms relating to patterns of AAS use

**Cycling**: Steroids are commonly used in time cycles of between six to 12 weeks, often with a break of an equal period of time in between each cycle.

**Fast tapering**: Starting on a mid-range dosage and reducing to nothing over four to six weeks. A break of four to six weeks is usually taken before the cycle is repeated.

**Long increasing cycle**: Commencing with one third (1/3) of the dose, the person plans to finish the cycle with, then they increase the dose slowly over 10-14 weeks. This longer cycle is claimed to produce large muscle mass gains, but some users report that it produces the most unwanted side effects.

**Plateauing**: This is similar to the tolerance phenomena where the CNS has adapted and larger doses are required to achieve the same results/drug effect.

**Pyramid type cycle**: Increasing the dose over four to five weeks, then decreasing over the next four to five weeks. Having eight weeks rest before repeating the cycle.

**Shot-gunning**: Using one off doses.

**Stacking**: Using more than one type of steroid at a time.

**Tapering**: Initiating a high dose followed by gradual reduction.

Therapeutic uses of AAS

AASs facilitate the development and repair of muscle tissue and the androgenic effects relate to the development of male sexual characteristics (Reynolds 1996).

There are a number of steroidal drugs that are scheduled S4 for prescription for medical use.

These include:

- treatment of male gonadal failure, proven gonadotrophin deficiency and hypogonadism
- androgen therapy for refractory anaemia’s, wasting as a result of malignancies (including radiation therapy), or other illnesses (e.g. AIDS, burns, major trauma, chronic illnesses, eating disorders, osteoporosis), and rehabilitation after muscle injury. (NSW Department of Health 2002; Queensland Department of Health 1997).

Effects of AAS use

Risks associated with AAS use

Risks may increase with the type of steroid used, dose, duration of use, route of administration, and the number and types of steroids and other drugs used simultaneously. The physical and psychological status of person is also influential.

There are a number of direct risks associated with the use of anabolic steroids. These include:

- the range of physiological responses to abnormal hormone levels
- the risks related to the route of administration (e.g. exposure to blood-borne viruses, and bacterial infections resulting in abscesses at the injection site, cellulitis and endocarditis due to unsafe injecting practices)
- unsafe intramuscular injection techniques
- problems arising from using supplies for veterinary use only and the unknown effects on the human male or female body
- unreliable labelling and accuracy, purity, dose, ingredients and sterility of the drug
- not checking drug expiry dates
• combining anabolic steroids with other drugs (e.g. psychostimulants, diuretics or other performance-enhancing drugs)
• not practicing safe sex (condoms).

**Wanted effects of AAS use**

All drug use is functional (i.e. there are always reasons why people take drugs, including AAS (Zinberg 1984). These can include wanting to:

• look better (increase self image)
• increase muscle bulk and strength
• alter mental state to feel more powerful/assertive
• prevent muscle breakdown related to increase training or need to be more competitive
• increase appetite.

(Haynes 1985)

**Unwanted/adverse effects of AAS use**

Adverse effects may be exaggerated by those wanting to deter people from using AAS. Care should be taken to avoid this when discussing the possible adverse effects with clients (NSW Department of Health 2002). However it is important that people have current research-based information from which to make their decisions regarding AAS use. These factors need attention:

**Musculo-skeletal**

• premature closing of the epiphysis of the long bones resulting in stunted growth in adolescents
• tendon or ligament damage.

**Reproductive**

• reduction in testosterone and sperm production
• adenocarcinoma of the prostate
• adenocarcinoma of the colon
• Wilm’s tumour
• decreased breast size and altered fat distribution in women
• hairline recession in men
• male pattern baldness in women—irreversible
• transient infertility
• increased libido (at least initially, or a reduction in libido)
• impotence in men (usually reversible)
• involuntary and long-lasting erection (can be days)
• testicular atrophy (usually reversible)
• hirsutism in men and women
• gynaecomastia in men
• irregularities or cessation of menstrual periods, infertility (usually reversible)
• clitoral enlargement (usually permanent and not reversible)
• deepening voice in women (permanent).

**Cardiovascular**

• hypokalaemic-induced arrhythmia due to concomitant diuretic use
• hypertension
• oedema
• salt and fluid retention with bloating of face and elsewhere
• increased low density lipid proteins and decreased high density lipid proteins, which may lead to heart disease (relationship between AAS and cholesterol is poorly understood).
Psychological and behavioural
Causality is unclear but the following effects have been described:

▪ increased aggressiveness
▪ increased irritability
▪ labile mood
▪ depression
▪ mania
▪ psychosis
▪ psychological dependence
▪ increased confidence in some, and depression and lowered mood in others.

(NSW Department of Health 2002; Queensland Department of Health 1997; Braithwaite 1994)

Endocrine
▪ insulin resistance or impaired glucose tolerance
▪ diabetes.

Liver
▪ liver damage, e.g. jaundice, cirrhosis, tumours
▪ reversible liver function test abnormalities.

Other
▪ immunological changes
▪ male characteristics in unborn female foetus
▪ sleeping difficulties
▪ abscesses—bacterial infection from unsafe injecting or if too short a needle is used
▪ acne—permanent scarring possible
▪ more frequent colds
▪ foetal abnormalities.

Uncertain or debated harmful effects include
▪ aggression ("roid rage")
▪ cancer of the liver, kidneys, prostate
▪ hypertension
▪ loss of body hair.

Possible social effects
▪ breakdown of relationships or legal problems due to aggression, moodiness, sexual dysfunction, obsession with body building affecting the partner
▪ legal issues arising from using/dealing/supplying illicit drugs
▪ loss of career if a sportsperson or employed in particular profession/job.

Myths and misinformation
There are a number of myths surrounding AAS use and the methods that work better, none of which are based on scientific evidence.

Research evidence on the best approach to taking anabolic steroids for positive effects is scant. There are a range of issues and perspectives that appear to guide people in their preferred steroid, dosing regime, and route of administration. Other users may claim that:

▪ There is an effective dose that is below that which causes unwanted side effects.
▪ If there are no side effects there will be no primary or long term effects, e.g. anabolic gains.
▪ That a ‘flat’ dosing regime, accompanied by abrupt cessation, causes the least disruption to normal body function, and allows a return to normality more rapidly.
The pyramid cycle is the safest as the gradual increase in dose allows the body to adjust to increasing doses, and the tapering dose in the second half of the cycle allows the body to readjust gently thus avoiding a cessation reaction. It should be noted that many steroids are metabolised and eliminated slowly from the body so there is an inbuilt taper in blood levels even if administration of the substance is suddenly ceased.

- Higher doses work better.
- Using more than one anabolic steroid is better.
- Use of steroids will prolong life.
- Injecting into muscle rather than a vein reduces the likelihood of contracting a blood-borne virus infection.
- One six week cycle will achieve the goal.

(Reynolds 1996)

**AAS and other drug interactions**

The concomitant use of steroids with other drugs is not recommended. These are examples of AAS polydrug interactions:

**Stimulants:** Some effects are similar to those caused by steroids—although physiological processes are different. When combined there may be:

- increased heart rate
- increased blood pressure
- depression.

These may be dangerous and can be fatal.

**Cocaine:** Causes similar effects to amphetamines although for a shorter period of time. When combined there may be:

- increased heart rate, blood pressure and body temperature
- euphoria.

When used together steroids and cocaine can:

- mask pain
- increased pressure on the heart leading to convulsions and cardiac arrest
- provoke feelings of aggressiveness and competitiveness
- increase libido.

Psychological depression may occur when ceasing combined use of cocaine with steroids.

**CNS depressant drugs** (eg. benzodiazepines, opiates, alcohol):

- reduce responsiveness to pain that can cause athletes to rupture muscles and damage the skeletal system.

**Diuretics:** Use of steroids with diuretics can:

- alter the sodium/potassium balance in the body. This may cause, exhaustion, kidney damage, muscle weakness, cardiac arrest and death.
- increase sodium levels and cause fluid retention.

**Nolvadex (Tamoxifen):** An anti-oestrogen drug that is used concurrently with AAS to prevent the effects of oestrogen metabolites which result in steroids being aromatised. It may not be reliably effective in preventing gynaecomastia because there may be a number of physiological mechanisms that cause this disorder. Women using Nolvadex with steroids can experience menopausal symptoms.

**Clonidine:** If used in combination with AAS there is an increased risk of kidney and liver disease and impotence.

**Insulin:** Does not assist in an increase in muscle mass and definition. There have been reports of several insulin-related deaths in Australia and other parts of the world due to
the ill informed belief that insulin, when used in combination with AAS, will increase muscle mass and definition (Queensland Department of Health 1997).

**Dependence**
Generally physical dependence (neuro-adaption) does not appear to occur with steroid use. There are some reports of cases of psychological dependence, but this is so far controversial (NSW Department of Health 2002).

There is some evidence that particular people may become dependent on steroids, as defined in the standard international classification systems (e.g. DSM-IV and ICD-10). For example, those users whose:
- continued use has become more important than family, friends, health or work
- fear prevents them from stopping due to a need to maintain strength or size gains despite obvious harmful consequences.

(Queensland Department of Health 1997)

**Assessment and quantification**
Type of steroid/s—include multiple steroid use
When first commenced or recommenced steroid use ask the person about:
- type of AAS—number and type taken simultaneously
- beliefs about use
- dose
- time of last dose
- administration regime (e.g. tablets or injecting—ask size of needle)
- pattern and duration of use (e.g. cycling)
- periods of abstinence or ‘spells’
- wanted effects (reason for using)
- adverse effects
- risk factors (e.g. unsafe injecting techniques such as sharing of steroid solution and injecting equipment, skin hygiene, polydrug use such as multiple AAS and/or other drugs).

**Nursing management of AAS use**
- nursing observations for drug effects and side effects
- provide supportive care (psychological effects)
- provide supportive nursing care in relation to minimising and relieving unwanted physical side effects
- attend to psychological issues
- management of behavioural issues (e.g. aggression)
- provide harm reduction information and strategies.

**Harm reduction information AAS use**
Avoid sensationalism and provide factual and practical information.

Information can include:
- AAS use cannot be considered risk-free for anyone.
- It is best not to ever use/to cease use.
- There can be temporary and permanent adverse effects.
- Seek advice on specific training regimes and diet as alternatives to steroid use is available.
• Counterfeit steroids are sold. Never purchase products if you are unsure of authenticity. Authentic steroids are sealed and come in their original packaging with clearly written ‘use by date’. If the seal has been damaged or removed or there is no label or you suspect the label is a photocopy, it may not be the real thing. Contents may have been contaminated or replaced with other substances such as cooking oil.
• Never use multiple steroids or combine a steroid with other drugs
• Monitor health in consultation with a general practitioner.
• Use of steroids in high doses is dangerous. Supervision and advice from a medical doctor may assist in reducing AAS risks and harms.
• Safety and effectiveness of oral versus injectable steroids is questionable due to liver metabolism.
• Provide information about the drug/s and effects and possible adverse effects.
• Advise that non-prescribed use of steroids is not recommended, risky and illegal.
• Note the risks of drug interactions with concurrent use of other drugs.
• Use of insulin is dangerous.
• Have blood tests prior to an AAS cycle and on completion of AAS cycle to screen for liver, kidneys and heart function. Other pathology tests may be useful, e.g. serum electrolytes, cholesterol, blood pressure, oedema, and blood-borne viruses (if at risk). The person needs careful pre-test education and post-test counselling.
• Pathology tests of doubtful benefits include full blood count—except where specifically indicated by clinical history, and gonadotrophin, oestrogen and testosterone levels.
• Always use new needles and syringes and other injecting equipment such as swabs.
• Never share steroid solution—use your own.
• Never share any injecting equipment.
• Use safe injecting techniques—never inject a steroid into a vein or artery (intramuscular injection should be used) as oil-based steroids can cause clots if injected into an artery.
• Do not use steroids in combination with diuretics ‘water pills’. This can be fatal due to marked electrolyte disturbances.
• Avoid using higher doses. Higher steroid doses are unlikely to achieve greater performance/appearance or other enhancing effects due to saturation of steroid receptors—dose should be kept to a minimum.
• If side effects are experienced, cease use immediately and do not treat the effects with other drugs. Seek medical advice.
• Do not use any tablet or substance that you cannot confidently identify.


The person must be advised not to use insulin. However, if they are determined to use insulin give them the following advice to reduce the risks:
• Consider using a natural method of raising the blood insulin levels during workouts (e.g. consuming glucose containing fluids at intervals during exercise) which may have a protein sparing effect, help maintain blood glucose and insulin levels.
• Always use insulin in the presence of another person (who will stay for the time of insulin effect not only at the time of injection) who knows the risks of insulin use and can administer first aid.
• Always use clean injecting equipment and technique—inject subcutaneously into the abdomen or outer thigh.
• Rotate injecting sites to protect tissues.
• Always use short-acting insulin.
• Use human insulin not animal insulin.
• Take care in measuring the dose of insulin as it is very concentrated.
• Do not believe that more insulin is better.
• Only use once a day, immediately before breakfast.
• Consult an experienced professional sports nutritionist to discuss the use of insulin.
• Use low glycaemic index foods at regular intervals throughout the day.


**Cessation of AAS use**

**Cycle completion**
When steroid users complete a cycle they experience a temporary ‘shut down’ where synthetic testosterone is no longer available and their own body is not yet producing testosterone (or is doing so at a greatly reduced rate). This results in loss of muscle size and weight, reduced strength, loss of lean muscle, and gain in body fat. As steroids relieve joint pain, joint pain may be experienced. The person may feel small, fat, weak, mentally depressed and have general aches and pains. These factors and negative comments from others, may encourage the person to recommence use.

**Cessation of use**
Most wanted and unwanted effects are reversible with cessation of use.
There is no need to taper dose to cease use, however idiosyncratic symptoms due to cessation can arise (e.g. mood swings and depression) which should be monitored and if necessary treated.
As with people who use other drugs, AAS users may find it difficult to cease their use. They need to be educated and supported in using as safely as possible, and encouraged to consider cessation at some time. (Queensland Department of Health 1997)

**Signs and symptoms of cessation of AAS use**
Some users report that length of time they have been using steroids and doses used effects how they feel when they cease use.
There is evidence that if a person has been using steroids for a long time at high doses, it takes up to four months or more for the body’s natural testosterone production to return to normal. However the precise relationship between dose, duration of use and symptoms on cessation remains unclear. When a steroid cycle is completed the effects of abnormally low testosterone levels may be experienced.
These include:
• mood swings
• violent behaviour
• rage
• depression and suicidal ideation
• lethargy
• decreased appetite
• weight loss
• decrease in physical strength
• decrease in libido.

(NSW Department of Health 2002; Queensland Department of Health 1997)
Some people who use steroids may have damage to testosterone production and need hormone replacement therapy (Taylor 1999).
Maternal and neonatal care
Steroids can be teratogenic and masculinise female foetuses. Women should be advised not to use before, during or after pregnancy or while breastfeeding.
3.12 Pharmacotherapies for dependence

Introduction
There is a range of pharmacological therapies that are effective in the treatment of alcohol, opioid and nicotine dependence in Australia. Evidence-based pharmacotherapies are yet to be developed for psychostimulant dependence.

All nurses, midwives, medical officers and allied health professionals need to know about these treatments, the rationale and benefits of use.

While some people can achieve abstinence without the use of medication, others require prescribed medication for weeks, months or years.

Longer-term prescribing of specific medications in this domain is known as ‘replacement pharmacotherapy’ (e.g. methadone for opioid dependence, naltrexone for alcohol dependence, nicotine patches for nicotine dependence). Pharmacotherapy requires extensive medical and psychosocial assessment, supervision, monitoring and regular review (at least three monthly for stable clients, more frequently for those at risk), and should be part of a broader program of general health care (including dental), counselling, management of comorbid conditions and social support. It may or may not be a treatment of first choice for a person presenting to a GP or specialist service for the first time, and where other options have not been explored.

Opioid pharmacotherapies
Opioid maintenance pharmacotherapy (sometimes referred to as ‘substitution therapy’) is very effective for a significant number of people who are dependent on opioids such as heroin.

Methadone
Methadone is very cost effective for clients, service providers and government.

The use of methadone maintenance has a strong evidence base particularly in areas of reducing criminal activity and illicit opioid use, thus reducing the cost to society and improving health and well being of individuals. Methadone is one of the most researched treatment modalities for dependence, and an overall assessment of its effectiveness can be made with more confidence than for other treatments.

Methadone has been the ‘gold standard’ pharmacotherapy for opioid dependence for over the last 30 years. Doses range from 40mgs to 120mgs/day depending on individual health status and circumstances of each client. Methadone is more effective at higher doses (at least 60mgs) as a maintenance therapy.

It is a synthetic opioid with a long half-life, e.g. longer acting than heroin. It is active orally as syrup, can be administered once a day under medical or nursing supervision at a clinic, or dispensed from a specified community pharmacy or hospital.

There are criteria for admission into methadone maintenance programs. A specialist doctor or GP prescribes methadone, with the client being registered with the local relevant authority such as the health department.

Methadone should be used as part of a program that includes treatment for a comorbid psychiatric disorder, and where counselling for personal problems is available.

Caution needs to be observed regarding people receiving high doses if there is concurrent alcohol or benzodiazepine dependence as there is a risk of respiratory depression.
Most people will experience few symptoms of withdrawal or craving for opioids. The incidence of injecting and using additional opioids such as heroin while on methadone drops significantly. Should a lapse to opioid use occur, high doses of methadone blunt the euphoric effects of illicit opioids therefore there is less reinforcement to continue illicit opioid use. Poor outcomes have been demonstrated regarding people with antisocial personality disorder, poor social support, polydrug dependence, and genetic risk of substance dependence (Young et al. 2002, p. 91).  

**Pain relief**

If a person is being prescribed methadone as a maintenance pharmacotherapy for opioid dependence, even at high doses, they will require additional opioids over and above their daily methadone dose for effective pain relief due to tolerance. Accident and emergency and other nursing and medical staff need to know that a person is taking methadone so that effective pain relief can be offered.  

**Safety**

There is a risk of overdose if additional opioids are taken with methadone. Dose tolerance reduces with abstinence, so the person needs to be reassessed if they have not had methadone for more than three days. Methadone has no severe long-term effects on health, however, it is a drug of dependence and expert advice should be sought if there is abrupt cessation of use. Most people can remain in treatment over a long term with no ill effects on health.  

**Side effects**

Short term:
Related to the central nervous system depressant properties of opioids:
- constipation
- nausea/vomiting
- drop in body temperature
- bradycardia, palpitations
- hypotension.

Long term:
- weight gain
- tooth decay due to decreased oral secretions.

Contraindications:
- kidney disease
- liver disease.

**Drug interactions**

(See Table 3.8: ‘Drug interactions with methadone’ in Section 3.2: Opioids.) Withdrawal syndrome from cessation of methadone (severity varies with the dose) will occur one to three days after last dose, and may last two weeks or more. Abrupt cessation from doses above 20mgs per day is not recommended. (See Section 3.2: Opioids.)

**Use in pregnancy**

(See ‘Opioid use during pregnancy’ in Section 3.2: Opioids.)

**Breastfeeding**

(See ‘Breastfeeding’ in Section 3.2: Opioids.)
Naltrexone

Note: Research into the effectiveness of long-term naltrexone pharmacotherapy for opioid abstinence maintenance shows that due to poor acceptance there is a high drop-out rate from treatment. This therapy may be selected for a person who is highly motivated, abstinence and psychologically stable, and not likely to cease naltrexone and relapse into opiate use and running the risk of overdose due to reduced opioid tolerance (Growing et al. 2001; Young et al. 2002).

Naltrexone is an opioid antagonist recently registered for use in relapse prevention in Australia. As an antagonist, naltrexone blocks both the euphoric and analgesic effects of opioids. It is long acting, with effects lasting between 24 and 72 hours.

As a maintenance pharmacotherapy treatment for opioid dependence, naltrexone is prescribed for daily use for up to two years to help prevent relapse to opioid use, and is administered orally.

It should always be used in conjunction with counselling and support and access to other psychotherapy. It has also been used in rapid detoxification (see below). There are particular issues for nurses in managing withdrawal from opioids precipitated by naltrexone when this drug has been self-administered by opioid users (see Section 3.2: Opioids).

Safety

There is a high risk of death by opioid overdose if the person takes opioids after ceasing naltrexone due to reduced tolerance to opioids.

Use of naltrexone while still opioid-dependent will bring on severe withdrawal symptoms. People must have completed detoxification prior to using naltrexone (Objective Opiate Withdrawal Scale score is less than or equal to 4), unless undergoing rigorously supervised rapid opioid detoxification (see below).

As naltrexone use can be associated with psychological depression, medical staff should be informed of any history of depression. A referral to a psychologist or psychiatrist may be required. Naltrexone is not the pharmacotherapy of choice for people who have a pre-existing depression.

Pain relief

If a person is using naltrexone, opioid-based analgesics (or codeine-based cough medicines) will be ineffective. Accident and emergency and other nursing and medical staff need to know if a person is taking naltrexone so that effective pain relief can be provided by using non-opioid analgesics in these situations.

Side effects

Naltrexone is generally well tolerated. Some of the side effects may be due to residual withdrawal symptoms associated with heroin or other opioid dependence. If depression occurs as a side effect of Naltrexone, an alternative pharmacotherapy is often considered. Side effects may include:

- depression
- sleep disturbances
- headaches
- loss of energy
- nausea and vomiting
- abdominal pain
- constipation
- loss of appetite
- anxiety.
Withdrawal
No withdrawal syndrome occurs when naltrexone treatment stops.

Rapid opioid detoxification (ROD)
This form of detoxification is known by a number of names, including ‘ultra-rapid detoxification’, ‘accelerated detoxification’, ‘sedated detoxification’ and ‘detoxification under anaesthetic.’

ROD involves the rapid induction of withdrawal using the opioid antagonist naltrexone (see above) while the person is anaesthetised or sedated. The detoxification is followed with daily naltrexone treatment as above.

ROD has been trialled at a number of sites in Australia. Some significant risks have been associated with sedation during ROD, including death as a result of aspiration or respiratory depression.

This treatment has not been approved by the Therapeutic Goods Administration.

For treatment guidelines for the management of opioid withdrawal inadvertently precipitated by naltrexone (see Section 3.2: Opioids).

Buprenorphine
Buprenorphine is a partial agonist—an opioid analgesic with both agonist and antagonist properties.

Buprenorphine is as effective as methadone for people with moderate levels of dependence, and possibly for those with higher levels (Hulse et al. 2002, p. 91).

Buprenorphine is usually administered sublingually in crushed tablet form and reaches its peak effect after about 3 hours.

It is easier to taper buprenorphine than methadone, and as a partial agonist is safer in overdose. It also results in less respiratory depression than full agonists such as methadone.

A wider safety margin and strong receptor binding leading to a long half-life make alternate day dosing a convenient option for many people.

Buprenorphine is cost effective and has a low likelihood of being sold on the street as it can precipitate withdrawal in opioid-dependent people.

It has been found to be also highly effective, thus offering a greater choice for clients in the context of high quality, well supervised and medically supervised services.

As a partial agonist it induces lower level physical dependence than methadone so cessation is more comfortable.

(Hulse et al. 2002, pp. 91-92)

Safety
Buprenorphine is relatively safe; there have been no deaths in Australia attributed to buprenorphine alone.

Side effects
Some side effects have been reported, however these are relatively mild. They include:

- headache
- sedation
- nausea
- constipation
• anxiety
• dizziness
• itching.

**Alcohol pharmacotherapies**
Pharmacotherapy for alcohol dependence is more effective when provided in conjunction with other therapies (e.g. cognitive behavioural therapy, narrative therapy, counselling, other supportive programs).

**Acamprosate (Campral)**
The use of acamprosate is a pharmacotherapy used to prevent alcohol relapse post-withdrawal. The mechanism of action is yet to be clearly identified, and may have various CNS actions. It assists in the reduction of cravings for alcohol where the person is seeking to abstain or reduce their consumption.

Acamprosate should be initiated as soon as possible following withdrawal.

Daily dose is calculated according to body weight with average daily dose between 1.3-2 grams per day for a person weighing greater than 60kgs. Compliance can be an issue as dosage is usually two tablets x three times/day (333mg in each tablet). The recommended length of treatment is one year.

Acamprosate does not interact with alcohol, and does not have hypnotic, anxiolytic or antidepressant effects.

It is considered safe in the absence of liver disease or renal insufficiency.

Acamprosate can be given concomitantly with disulfiram, and interactions with other drugs have not been noted.

Acamprosate has been shown to be effective by increasing non-drinking days and nearly doubling abstinence rates in study populations. It is yet unknown which particular groups will particularly benefit from this therapy.

**Safety**
Acamprosate is well-tolerated—no adverse effect if alcohol is consumed. Acute overdose with acamprosate is usually benign with diarrhoea being the major symptom identified.

**Side effects (usually mild and transient)**
• diarrhoea
• nausea
• vomiting
• dyspepsia
• itching skin rash
• changes in libido.

**Contraindications**
• allergy
• severe liver disease
• pregnancy
• breastfeeding
• kidney disease (renal insufficiency where serum creating is more than 120 micromol/L)
• withdrawal.

No withdrawal syndrome occurs on cessation of acamprosate.
Naltrexone

Naltrexone suppresses the priming effect of alcohol (blunts the euphoric effects of alcohol and reduces the positive reinforcement of alcohol use) and can assist in achieving goals of reduction in consumption and/or abstinence.

Monitoring the liver profile is recommended during the course of naltrexone treatment, which is usually three to six months.

A dose of 50mg daily has shown positive outcomes with relapse rates, craving and number of non-drinking days.

Naltrexone is effective, safe and well tolerated. Naltrexone is best commenced following alcohol withdrawal, however, there are no contraindications in commencing naltrexone while the person is still drinking. In this situation efficacy in assisting someone to reduce or cease his or her use is not known.

Safety

Has the capacity to cause hepatocellular injury when given in excessive doses.

Caution is required if transaminases are above three times the normal range.

Side effects

Side effects are generally dose-dependant and include:

▪ gastrointestinal tract (nausea, vomiting)
▪ headache
▪ dizziness
▪ nervousness
▪ fatigue
▪ anxiety
▪ depression.

Contraindications

The principal contraindication for naltrexone use is when there is coexisting use and dependence on opioids as a withdrawal episode may be induced. Other contraindications include:

▪ oral hypoglycaemic medication
▪ acute hepatitis or liver failure
▪ concomitant therapy with thioridazine
▪ opioid analgesic use

Caution should be exercised when combining naltrexone with other drugs associated with potential liver toxicity.

Disulfiram (Antabuse)

The goal in prescribing disulfiram is to provide a powerful disincentive to drink. It is usually prescribed for three to six months following withdrawal and is provided in combination with monitoring, support, and psychosocial interventions.

It is dispensed in 200mg dispersible tablets, with the usual dose being 200mg daily. The usual recommended length of treatment is six weeks to six months.

Disulfiram inhibits the ALDH in the liver, and if the person drinks alcohol, causes an accumulation of acetaldehyde. Within 15 minutes of drinking the person may experience the following:

▪ flushing
▪ feeling heat and sweating
▪ nausea
• vomiting
• palpitations and rapid pulse
• headache
• difficulty breathing
• blood pressure may rise steeply initially followed by a drop in blood pressure resulting in pallor, weakness, dizziness, nausea and vomiting.

Ideally it is commenced post-withdrawal or at least 48 hours after the last drink (with evidence of zero blood alcohol level). Alcohol should not be consumed for one week following the last dose.

Indications for use are for a person who is alcohol dependent, wishes to achieve immediate abstinence, and who clearly understands the nature of the drug and its effects.

To be successful this therapy requires a method of supervision of daily doses.

**Safety**

Liver function tests need to be done fortnightly for the first two months, then monthly.

People with major co-existing psychiatric disorders such as bipolar, depression and psychotic illness need close supervision as disulfiram may worsen these disorders by affecting the brain dopamine systems. However 200mg daily is generally considered safe for these people.

People commencing on Disulfiram should be advised of the following:

• Do not consume or use any alcohol or alcohol containing products of food including medicines, cough mixtures, marinated meat, wine trifle and food essences.
• After shave, mouthwashes, alcohol rubs and perfumes are usually safe unless swallowed.
• Always read the labels on all food and medicines to ensure they don’t contain alcohol.

**Side effects**

Short term effects which may occur in the first two weeks include:

• initial drowsiness
• fatigue
• metallic taste
• rash/acne
• headache
• sexual dysfunction
• stomach upset.

These side effects usually disappear by themselves. Other side effects, or adverse reactions include:

• peripheral neuropathy
• changes in vision, eye tenderness/pain
• mood changes
• yellowing of the skin/eyes
• abdominal pain

**Contraindications**

The drug is teratogenic and contraindicated in pregnancy.

Aversion reaction may cause tachycardia and hypotension, and precipitate a coronary event or serious arrhythmia.

Older people need a cardiac history (an electrocardiogram) prior to commencing disulfiram.
Complications may result if the person has a history of:

- coronary artery disease
- history of arrhythmias
- heart failure
- severe liver disease (disulfiram can cause toxic hepatitis although this is rare).

**Drug interactions**

Disulfiram interacts with:

- phenytoin
- warfarin
- diazepam
- anti-tuberculous medication.

(Lopatko et al. 2002, pp. 192-193)
Section 4
Appendices
Appendix 1: Taking a Drinking History

It is useful to ask the person to fill in this form. You may need to assist them.
Over the next _____ weeks, please write down how you drink. Fill out the sheet each night before going to bed.
Look at column number one.

1. Write down what day it is today.
2. How many drinks have you had all day today? Record number of standard drinks for each type of drink. If you did not have any beer today, put a dash in that square. If you drank beer write down the number of standard drinks you had.
3. Use the guide below to calculate how many standard drinks are in each type of beverage

STANDARD DRINKS
A standard drink contains 10 grams of alcohol. Beer, wine and spirits vary in the amount of alcohol they contain.

<table>
<thead>
<tr>
<th>Beverage</th>
<th>Day of the week</th>
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<tbody>
<tr>
<td></td>
<td>____day</td>
</tr>
<tr>
<td>Beer</td>
<td></td>
</tr>
<tr>
<td>Table Wine</td>
<td></td>
</tr>
<tr>
<td>Spirits</td>
<td></td>
</tr>
<tr>
<td>Fortified Wine</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

(Standard drinks courtesy of the Drug & Alcohol Services Council, SA, 2003.)

Appendix 1A: ATOD Assessment Form—Alcohol History

The alcohol assessment process should be incorporated into the nursing assessment form. The suggestions that follow assume the usual nursing assessment includes general nursing observations, medical and social and mental health history, contact with other services or agencies including alcohol and other drug services.

**Recent drinking (last three months, in particular last two weeks)**

<table>
<thead>
<tr>
<th>Alcohol type</th>
<th>How much (gms per day)</th>
<th>How often</th>
<th>How long/ Age commenced</th>
<th>With whom (friends, partner)</th>
<th>Length of last period of abstinence and date</th>
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- Other relevant information (include person’s concerns, pros and cons of use, purpose of use and need it fulfils, wanting to reduce or stop).

Last use: Date: __________________________

Time: __________________________

Amount: __________________________

Changes in drinking pattern over last two to three weeks: __________________________

Blood alcohol level this admission: __________________________

Imminent withdrawal (history of seizures, severe withdrawal or Wernicke’s withdrawal symptoms:

________________________________________________________________________

**Note:** Place on Alcohol Withdrawal Scale (AWS) if:

- Male consuming eight standard drinks (80gms) or more on a regular basis
- Female consuming six standard drinks (60gms) or more on a regular basis
- Previous alcohol withdrawal

If score reaches 8 on Alcohol Withdrawal Score contact medical officer and ATOD team.
Appendix 1B: ATOD Assessment Form—Drug History

(prescribed, illicit, over the counter and tobacco)

Recent drug use (last three months, in particular last two weeks)

<table>
<thead>
<tr>
<th>Drug used</th>
<th>Days used last month</th>
<th>Average amount per day $</th>
<th>Route (IV orally)</th>
<th>Date and time last used</th>
<th>Age began regular use/injecting</th>
<th>Length of person’s abstinence and date</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

• Other relevant information (include pros and cons of use, purpose of use and need it fulfils, concerns want to reduce or cease use).

Changes in drug use pattern over last two to three weeks:

________________________________________________________________________
________________________________________________________________________

Risk factors (e.g. imminent withdrawal, blood-borne viruses, needle or equipment sharing, unsafe sex):

________________________________________________________________________
________________________________________________________________________

**Note:** Place on appropriate Drug Withdrawal Assessment Scale if there is suspicion of emergence of drug withdrawal or if there is a past history of withdrawal symptoms and recent use has not decreased.
Appendix 2: Alcohol Use Disorders Identification Test (AUDIT)

(Developed and validated by World Health Organization (WHO) 1989.)

**Scoring for AUDIT**

Questions 1 through 8 are scored 0, 1, 2, 3 or 4. Questions 9 and 10 are scored 0, 2 or 4 only. The minimum score (non-drinkers) is 0 and the maximum possible score is 40. A score of 9 or more indicates hazardous or harmful alcohol consumption.


<table>
<thead>
<tr>
<th>Abstainer</th>
<th>Low risk alcohol use</th>
<th>Risky or harmful alcohol use</th>
<th>Alcohol dependence likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>&lt;8</td>
<td>8+</td>
<td>13+</td>
</tr>
<tr>
<td>no further intervention necessary</td>
<td>reinforce safe drinking behaviour</td>
<td>provide evidence on the consequences of continued risky or harmful alcohol consumption</td>
<td>provide advice and prescribe pharmacotherapy</td>
</tr>
</tbody>
</table>


An AUDIT score of 8 is associated with harmful or hazardous drinking. As a general guide, a score of 13 or more is likely to indicate alcohol dependence. Overall, the AUDIT is a comprehensive brief screening device, providing information on hazardous, harmful use, abuse and dependence.

See following page for questionnaire.
Appendix 2: Alcohol Use Disorders Identification Test (AUDIT) cont.

Table 4

THE AUDIT QUESTIONNAIRE

Circle the number that comes closest to the patient’s answer.

1. How often do you have a drink containing alcohol?

   (0) NEVER  (1) MONTHLY OR LESS  (2) TWO TO FOUR TIMES A MONTH  (3) TWO TO THREE TIMES A WEEK  (4) FOUR OR MORE TIMES A WEEK

2.* How many drinks containing alcohol do you have on a typical day when you are drinking?

   [CODE NUMBER OF STANDARD DRINKS]

   (0) OR 2  (1) 3 OR 4  (2) 5 OR 6  (3) 7 OR 8  (4) 10 OR MORE

   How often do you have six or more drinks on one occasion?

   (0) NEVER  (1) LESS THAN MONTHLY  (2) MONTHLY  (3) WEEKLY  (4) DAILY OR ALMOST DAILY

4. How often during the last year have you found that you were not able to stop drinking once you had started?

   (0) NEVER  (1) LESS THAN MONTHLY  (2) MONTHLY  (3) WEEKLY  (4) DAILY OR ALMOST DAILY

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

   (0) NEVER  (1) LESS THAN MONTHLY  (2) MONTHLY  (3) WEEKLY  (4) DAILY OR ALMOST DAILY

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

   (0) NEVER  (1) LESS THAN MONTHLY  (2) MONTHLY  (3) WEEKLY  (4) DAILY OR ALMOST DAILY

   How often during the last year have you had a feeling of guilt or remorse after drinking?

   (0) NEVER  (1) LESS THAN MONTHLY  (2) MONTHLY  (3) WEEKLY  (4) DAILY OR ALMOST DAILY

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?

   (0) NEVER  (1) LESS THAN MONTHLY  (2) MONTHLY  (3) WEEKLY  (4) DAILY OR ALMOST DAILY

9. Have you or someone else been injured as a result of your drinking

   (0) NO  (2) YES, BUT NOT IN THE LAST YEAR  (4) YES, DURING THE LAST YEAR

10. Has a relative or friend or doctor or other health worker been concerned about your drinking or suggested you cut down?

   (0) NO  (2) YES, BUT NOT IN THE LAST YEAR  (4) YES, DURING THE LAST YEAR

* In determining the response categories it has been assumed that one “drink” contains 10g alcohol. In countries where the alcohol content of a standard drink differs by more than 25% from 10g, the response category should be modified accordingly. Record sum of individual item scores here _____.
Appendix 2A: Alcohol: Brief Intervention

ALCOHOL: BRIEF INTERVENTION

**Alcohol Risk**

*One Standard Drink is:*

- LightBeer: 425 mL
- Regular Beer: 355 mL
- Wine: 100 mL
- Spirits or Liqueurs: 30 mL

<table>
<thead>
<tr>
<th>ARE YOU AT RISK FROM DRINKING ALCOHOL?</th>
<th>Common physical, emotional and social effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td><strong>Women</strong></td>
</tr>
<tr>
<td>Up to 4 standard drinks/day*</td>
<td>Up to 2 standard drinks/day*</td>
</tr>
<tr>
<td>Low Risk and Sensible</td>
<td>Increased relaxation</td>
</tr>
<tr>
<td>More than 4 standard drinks/day*</td>
<td>Reduced risk of heart disease</td>
</tr>
<tr>
<td>Moderate Risk and Hazardous</td>
<td></td>
</tr>
<tr>
<td>More than 2 standard drinks/day*</td>
<td>Less energy</td>
</tr>
<tr>
<td></td>
<td>Disturbed sleep</td>
</tr>
<tr>
<td></td>
<td>Poor coordination</td>
</tr>
<tr>
<td></td>
<td>Less able to think clearly and sharply</td>
</tr>
<tr>
<td></td>
<td>Danger for driving and operating machinery</td>
</tr>
<tr>
<td>More than 6 standard drinks/day*</td>
<td></td>
</tr>
<tr>
<td>High Risk and Harmful</td>
<td></td>
</tr>
<tr>
<td>More than 4 standard drinks/day*</td>
<td>High blood pressure</td>
</tr>
<tr>
<td>All of the effects of hazardous drinking plus:</td>
<td>Depression/stress</td>
</tr>
<tr>
<td></td>
<td>Impotence</td>
</tr>
<tr>
<td></td>
<td>Accidental injury</td>
</tr>
<tr>
<td></td>
<td>Weight gain</td>
</tr>
<tr>
<td></td>
<td>Drug interactions (eg tranquilisers)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 5 times per week
* If you are pregnant and continue to have more than 1 drink a day your unborn child could be harmed.
* There are times when you will be at risk even after 2 or 3 drinks. For example, when exercising, operating machinery or driving.

**WHAT IS EVERYONE ELSE LIKE**

[Graph showing percentage of population by gender and alcohol risk level]

**What benefits will YOU get from cutting down your drinking?**

**Physical**
- Sleep better
- More energy
- Lose weight
- No hangovers
- Memory will be better
- Better physical shape
- Reduced risk of injury to yourself and others
- Reduced risk of high blood pressure
- Reduced risk of liver damage
- Reduced risk of brain damage
- Reduced risk of cancer

**Psychological, Social, Financial**
- Improved mood
- Improved relationships
- Provide a good example for children
- Reduced risk of drink driving
- Save money

186
Appendix 2A: Alcohol: Brief Intervention cont.

How to do it

SET GOALS
What level of drinking should you keep below?

<table>
<thead>
<tr>
<th>WHO</th>
<th>HOW MANY DRINKS?</th>
<th>HOW OFTEN?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>No more than 4 standard drinks</td>
<td>5 times per week</td>
</tr>
<tr>
<td>Women</td>
<td>No more than 2 standard drinks</td>
<td>5 times per week</td>
</tr>
<tr>
<td>Pregnant women</td>
<td>No more than 1 standard drink</td>
<td>2-3 times per week</td>
</tr>
<tr>
<td>Men or women with existing alcohol related disease or physical damage</td>
<td>0 drinks are safe</td>
<td>0 times per week</td>
</tr>
<tr>
<td>Men or women with physical dependence on alcohol</td>
<td>0 drinks are safe</td>
<td>0 times per week</td>
</tr>
</tbody>
</table>

MOTIVATION TO CHANGE
How ready are you to change your drinking pattern to achieve your goal?

Not ready at present

<table>
<thead>
<tr>
<th>Ready to think about it</th>
<th>Ready to try it</th>
<th>Definitely ready to do it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide alcohol leaflet</td>
<td>Decision making – self-help booklet (see Maintaining Your Focus)</td>
<td></td>
</tr>
</tbody>
</table>

DETERMINE ACTION
How could you cut down on your drinking to reach these target levels?

- Have your first alcohol drink after starting to eat
- Quench thirst with non-alcohol drinks before having an alcohol one
- Have a non-alcohol drink before every alcohol drink
- Switch to low-alcohol beer
- Plan tasks or activities with family/friends at times that you usually drink

MAINTAINING YOUR FOCUS
How to keep on guard and on track?

Frequently asked questions

- How can I make a decision to reduce my drinking?
- Am I keeping to my goals?
- What are the most difficult times?

Tips for keeping you on track

- When bored or stressed have a physical workout instead of drinking
- Explore new interests – cinema, social club, exercise etc
- Avoid going for a drink after work
- If under social pressure to drink you can always say ‘No thanks, I don’t feel like drinking today’
- If aiming to stop drinking, ask your doctor about medication which may assist

Produced by the Drug & Alcohol Services Council (SA) with the permission of the Centre for Drug & Alcohol Studies, Department of Psychiatry, Sydney University
Appendix 4: Alcohol Withdrawal Observation Chart (FMC)

### ALCOHOL WITHDRAWAL OBSERVATION CHART

<table>
<thead>
<tr>
<th>Ward</th>
<th>Unit No.</th>
<th>Surname</th>
<th>Other Names</th>
<th>DOB/Sex</th>
<th>Address</th>
</tr>
</thead>
</table>

**Instructions:**
Implement using this chart when average DAILY alcohol consumption is:
- greater than 8 standard drinks (80g) for males or
- greater than 6 standard drinks (60g) for females and
- when there is clinical suspicion that withdrawal may occur.

1. What is the patient’s daily alcohol intake in standard drinks?
   (refer to standard drink amounts below)

2. What was the date and time of last drink?

3. What is the patient’s breath or blood alcohol level?
   (if patient was admitted via ED)

   - Breath alcohol
   - Blood alcohol

4. Has the patient experienced previous alcohol withdrawal?
   - Yes/No

5. Has the patient experienced a previous withdrawal seizure?
   - Yes/No

6. Has parenteral thiamine* been ordered and given prior to any administration of glucose or IV dextrose? (*dosage dependent upon assessment of severity as determined by medical assessment.)
   - Yes
   - No- contact M.O

7. Has a daily capsule of vitamins and minerals been ordered for at least 3 days?
   - Yes
   - No- contact M.O

### Alcohol - Standard Drinks
A standard drink contains 10g of alcohol. Beer, wine and spirits vary in the amount of alcohol they contain.

<table>
<thead>
<tr>
<th>Sparkling wine</th>
<th>Wine</th>
<th>Light beer</th>
<th>Regular beer</th>
<th>Fortified wine</th>
<th>Spirits</th>
</tr>
</thead>
<tbody>
<tr>
<td>(100ml)</td>
<td>(100ml)</td>
<td>(425ml)</td>
<td>(285ml)</td>
<td>(60ml)</td>
<td>(30ml)</td>
</tr>
</tbody>
</table>

*(Standard drinks graphic courtesy of the Drug & Alcohol Services Council, SA, 2003)*
Appendix 4: Alcohol Withdrawal Observation chart (FMC) cont.

Use the Alcohol Assessment Withdrawal scale (over page) and record observations 2 hourly or as needed. Notify MO if any of the following occur:
- alcohol withdrawal score is ≥ 8
- patient experiences a seizure
- any unexpected change in vital signs

<table>
<thead>
<tr>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>Temperature</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ALCOHOL WITHDRAWAL ASSESSMENT SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea and vomiting</td>
</tr>
<tr>
<td>Tremor</td>
</tr>
<tr>
<td>Paroxysmal sweats</td>
</tr>
<tr>
<td>Anxiety</td>
</tr>
<tr>
<td>Agitation</td>
</tr>
<tr>
<td>Tactile disturbances</td>
</tr>
<tr>
<td>Auditory disturbances</td>
</tr>
<tr>
<td>Visual disturbances</td>
</tr>
<tr>
<td>Headache, fullness in head</td>
</tr>
<tr>
<td>Orientation and clouding of sensorium</td>
</tr>
<tr>
<td>TOTAL SCORE</td>
</tr>
</tbody>
</table>

Obs. continued

<table>
<thead>
<tr>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Temperature</td>
</tr>
<tr>
<td>Pulse</td>
</tr>
<tr>
<td>Respiration Rate</td>
</tr>
<tr>
<td>Blood Pressure</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ALCOHOL WITHDRAWAL ASSESSMENT SCORE</th>
</tr>
</thead>
<tbody>
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<td>Nausea and vomiting</td>
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<td>Tremor</td>
</tr>
<tr>
<td>Paroxysmal sweats</td>
</tr>
<tr>
<td>Anxiety</td>
</tr>
<tr>
<td>Agitation</td>
</tr>
<tr>
<td>Tactile disturbances</td>
</tr>
<tr>
<td>Auditory disturbances</td>
</tr>
<tr>
<td>Visual disturbances</td>
</tr>
<tr>
<td>Headache, fullness in head</td>
</tr>
<tr>
<td>Orientation and clouding of sensorium</td>
</tr>
<tr>
<td>TOTAL SCORE</td>
</tr>
</tbody>
</table>
# Appendix 4: Alcohol Withdrawal Observation chart (FMC) cont.

## ALCOHOL WITHDRAWAL ASSESSMENT SCALE (BASED ON CIWA-Ar)

<table>
<thead>
<tr>
<th>Nausea and vomiting</th>
<th>Tactile disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask “Do you feel sick in the stomach? Have you vomited?” Observation</td>
<td>Ask “Have you any itching, pins and needles sensations, any burning, any numbness or do you feel bugs crawling on or under your skin?” Observation</td>
</tr>
<tr>
<td>0 No nausea and no vomiting</td>
<td>0 None</td>
</tr>
<tr>
<td>1 Mild nausea with no vomiting</td>
<td>1 Very mild itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>3</td>
<td>3 Moderate itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>4 Intermittent nausea, with dry retching</td>
<td>4 Moderately severe hallucinations</td>
</tr>
<tr>
<td>5</td>
<td>5 Severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>6 Extremely severe hallucinations</td>
</tr>
<tr>
<td>7 Constant nausea, frequent dry retching and vomiting</td>
<td>7 Continuous hallucinations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tremor</th>
<th>Auditory disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arms extended, elbows slightly flexed and fingers spread. Observation</td>
<td>Ask “Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?” Observation</td>
</tr>
<tr>
<td>0 No tremor</td>
<td>0 Not present</td>
</tr>
<tr>
<td>1 Not visible, but can be felt fingertip to fingertip</td>
<td>1 Very mild harshness or ability to frighten</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild harshness or ability to frighten</td>
</tr>
<tr>
<td>3</td>
<td>3 Moderate harshness or ability to frighten</td>
</tr>
<tr>
<td>4 Moderate</td>
<td>4 Moderately severe hallucinations</td>
</tr>
<tr>
<td>5</td>
<td>5 Severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>6 Extremely severe hallucinations</td>
</tr>
<tr>
<td>7 Severe, even with arms not extended</td>
<td>7 Continuous hallucinations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paroxysmal Sweats</th>
<th>Visual disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation</td>
<td>Ask “Does the light appear to be too bright? Is its colour different? Does it hurt your eyes? Are you seeing things you know are not there?” Observation</td>
</tr>
<tr>
<td>0 No sweat visible</td>
<td>0 Not present</td>
</tr>
<tr>
<td>1 Barely perceptible sweating, palms moist</td>
<td>1 Very mild sensitivity</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild sensitivity</td>
</tr>
<tr>
<td>3</td>
<td>3 Moderate sensitivity</td>
</tr>
<tr>
<td>4 Beads of sweat obvious on forehead</td>
<td>4 Moderately severe hallucinations</td>
</tr>
<tr>
<td>5</td>
<td>5 Severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>6 Extremely severe hallucinations</td>
</tr>
<tr>
<td>7 Drenching sweats</td>
<td>7 Continuous hallucinations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Headache, fullness in the head</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask “Do you feel nervous?” Observation</td>
<td>Ask “Does your head feel different? Does it feel as though there is a band around your head?” Do not rate for dizziness or light headedness. Otherwise rate severity.</td>
</tr>
<tr>
<td>0 No anxiety, at ease</td>
<td>0 Not present</td>
</tr>
<tr>
<td>1 Mildly anxious</td>
<td>1 Very mild</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild</td>
</tr>
<tr>
<td>3</td>
<td>3 Moderate</td>
</tr>
<tr>
<td>4 Moderately anxious or guarded so anxiety is inferred</td>
<td>4 Moderately severe</td>
</tr>
<tr>
<td>5</td>
<td>5 Severe</td>
</tr>
<tr>
<td>6</td>
<td>6 Very severe</td>
</tr>
<tr>
<td>7 Equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions</td>
<td>7 Extremely severe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agitation</th>
<th>Orientation and clouding of sensorium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observation</td>
<td>Ask “What day is this? Where are you? Who am I?” Observation</td>
</tr>
<tr>
<td>0 Normal activity</td>
<td>0 Oriented and can do serial additions</td>
</tr>
<tr>
<td>1 Somewhat more than normal activity</td>
<td>Ask person to perform serial addition of 3a up to 30 eg 3,6,9,…</td>
</tr>
<tr>
<td>2</td>
<td>2 Disoriented by date by no more than 2 calendar days</td>
</tr>
<tr>
<td>3</td>
<td>3 Disoriented for date by more than 2 calendar days</td>
</tr>
<tr>
<td>4 Moderately fidgety and restless</td>
<td>4 Disoriented for place and/or person</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7 Paces back and forth during most of the interview or constantly thrashes about</td>
<td></td>
</tr>
</tbody>
</table>

Clinical Institute Withdrawal Assessment for Alcohol – Revised
Appendix 4: Alcohol Withdrawal Observation chart (FMC) cont.

**Nursing Guidelines—withdrawal management**

The basis of all successful withdrawal management is a clear and accurate alcohol use assessment with immediate attention to time of last drink. Managing anxiety is also essential to the effective management of any withdrawal state.

Nursing management of withdrawal focuses on the following areas:

- assessment and early recognition
- monitoring, documenting and reporting
- minimising progression to severe withdrawal
- decreasing risks of any injury to self/others
- eliminating any risk of dehydration, electrolyte or nutritional imbalance
- reducing any risk of seizures
- identifying concurrent illness that masks/mimics or complicates withdrawal
  
  providing supportive care

  preparing for discharge after-care and referral as desired.

For more information and Nursing Care plans, refer to:
Alcohol, Tobacco & Other drugs:
Guidelines for Nurses and Midwives
A Framework for Policy & Standards
Section 2- Client Care

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**Useful resources/references**

Alcohol and Drug Information Service (ADIS) 1300 131 340
(24 hour confidential telephone counselling and information)

Drug and Alcohol Services Council (DASC) www.dasc.sa.gov
Appendix 4A: Alcohol Withdrawal Observation Chart (DASC)

**ALCOHOL WITHDRAWAL OBSERVATION CHART**

<table>
<thead>
<tr>
<th>Surname</th>
<th>Date of Birth</th>
<th>Sex</th>
<th>Ur Number</th>
<th>Weight</th>
<th>Unit</th>
</tr>
</thead>
</table>

When alcohol withdrawal is predicted, it is appropriate to load the patient with diazepam prior to significant withdrawal becoming evident. However, at times alcohol withdrawal may complicate an admission for another reason (e.g. surgery, pneumonia etc) and the first indication is when alcohol withdrawal becomes evident and requires treatment. Advice re appropriate protocols is provided on page 4.

1. **Average daily alcohol consumption during the past week** ___________ grams (= standard drinks x10)

   Withdrawal is unlikely if alcohol consumption <80 grams daily.

2. **Date and time of last drink**

   Date ___________ Time ________ hrs

   Onset of alcohol withdrawal usually 6–24 hours from last drink although may be delayed.

3. **Breath alcohol reading** ___________ grams percent at ________ hours

   Diazepam should not be given until the breath alcohol reading is ≤0.1%.

4. **Notify doctor if:**
   - previous withdrawal seizures
   - delirium tremens (disorientation, confusion, hallucinations, autonomic hyperactivity e.g. sweating, fever, tachycardia, dilated pupils at ≥48 hours)
   - recent benzodiazepine use (this may affect the expression of alcohol withdrawal symptoms)
   - recent/suspected head injury
   - patient not easily rousable to speech
   - respiratory disease
   - oxygen saturation <94% (on air)
   - respiratory rate <8 or ≥25 breaths per minute
   - severe liver disease
   - other medications especially CNS depressants (e.g. opioids) are prescribed/taken

5. **Environment**

   Low stimulation, reassurance, reorientation and even lighting. Care by the same nurse for each shift is desirable and reduces likelihood of complications.

6. **Thiamine (to prevent acute Wernicke's Syndrome) must be given before any form of glucose loading.**

   - *Moderate–Severe withdrawal predicted* (determined at risk of Wernicke's): thiamine 100 mg IM tds for 3 days then oral thiamine 100 mg per day for one week. Daily oral multivitamin and mineral supplement.
   - *Mild withdrawal predicted* (not determined at risk of Wernicke's): One dose thiamine 100 mg IM then thiamine 100 mg orally daily. Daily oral multivitamin and mineral supplement.

7. **Diazepam: commence when BAC ≤0.1%**

   If withdrawal is predicted it is prudent to follow the weight related loading instructions (refer to Protocol 1). If there is a history of alcohol withdrawal seizures then the seizure prophylaxis regime should be followed. For unexpected alcohol withdrawal complicating medical/surgical admission refer to Protocol 2.

   Further advice may be sought from the Drug & Alcohol Clinical Advisory Service on 1300 13 1340 (24 hours).

8. **Alcohol Withdrawal Score (AWS) should be monitored hourly during loading, thereafter:**
   - hourly if AWS ≥20
   - 2 hourly if AWS 8–20
   - 4 hourly if AWS <8
   - if score fails to settle with the prescribed diazepam or rises >15 the doctor should be notified

9. **Symptomatic treatment** (e.g. for headache, nausea and vomiting) may be useful:
   - Paracetamol: 500 mg–1 gram oral 4–6 hourly prn
   - Metoclopramide: 10 mg oral/IM tds prn
## Alcohol Withdrawal Observation Chart (DASC) cont.

### Alcohol Withdrawal Assessment Scale

<table>
<thead>
<tr>
<th>Nausea and vomiting</th>
<th>Tactile disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask</strong> “Do you feel sick in the stomach? Have you vomited?” <strong>Observation</strong></td>
<td><strong>Ask</strong> “Have you any itching, pins and needles sensations, any burning, any numbness or do you feel bugs crawling on or under your skin?” <strong>Observation</strong></td>
</tr>
<tr>
<td>0 No nausea and no vomiting</td>
<td>0 None</td>
</tr>
<tr>
<td>1 Mild nausea with no vomiting</td>
<td>1 Very mild itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>4 Intermittent nausea, with dry retching</td>
<td>3 Moderate itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>5</td>
<td>4 Moderately severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>5 Severe hallucinations</td>
</tr>
<tr>
<td>7 Constant nausea, frequent dry retching and vomiting</td>
<td>6 Extremely severe hallucinations</td>
</tr>
<tr>
<td></td>
<td>7 Continuous hallucinations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tremor</th>
<th>Auditory disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arms extended, elbows slightly flexed and fingers spread. Observation</strong></td>
<td><strong>Ask</strong> “Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?” <strong>Observation</strong></td>
</tr>
<tr>
<td>0 No tremor</td>
<td>0 Not present</td>
</tr>
<tr>
<td>1 Not visible, but can be felt fingertip to fingertip</td>
<td>1 Very mildly sensitive</td>
</tr>
<tr>
<td>4 Moderate</td>
<td>2 Mild sensitivity</td>
</tr>
<tr>
<td>5</td>
<td>3 Moderate sensitivity</td>
</tr>
<tr>
<td>6</td>
<td>4 Moderately severe hallucinations</td>
</tr>
<tr>
<td>7 Severe, even with arms not extended</td>
<td>5 Severe hallucinations</td>
</tr>
<tr>
<td></td>
<td>6 Extremely severe hallucinations</td>
</tr>
<tr>
<td></td>
<td>7 Continuous hallucinations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Paroxysmal sweats</th>
<th>Visual disturbances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Observation</strong></td>
<td><strong>Ask</strong> “Does the light appear to be too bright? Is its colour different? Does it hurt your eyes? Are you seeing things you know are not there?” <strong>Observation</strong></td>
</tr>
<tr>
<td>0 No sweat visible</td>
<td>0 Not present</td>
</tr>
<tr>
<td>1 Barely perceptible sweating, palms moist</td>
<td>1 Very mild sensitivity</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild sensitivity</td>
</tr>
<tr>
<td>3</td>
<td>3 Moderate sensitivity</td>
</tr>
<tr>
<td>4 Beads of sweat obvious on forehead</td>
<td>4 Moderately severe hallucinations</td>
</tr>
<tr>
<td>5</td>
<td>5 Severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>6 Extremely severe hallucinations</td>
</tr>
<tr>
<td>7 Drenching sweats</td>
<td>7 Continuous hallucinations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Headache, fullness in the head</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask</strong> “Do you feel nervous?” <strong>Observation</strong></td>
<td><strong>Ask</strong> “Does your head feel different? Does it feel as though there is a band around your head?” <strong>Do not rate for dizziness or light headedness. Otherwise rate severity.</strong></td>
</tr>
<tr>
<td>0 No anxiety, at ease</td>
<td>0 Not present</td>
</tr>
<tr>
<td>1 Mildly anxious</td>
<td>1 Very mild</td>
</tr>
<tr>
<td>2</td>
<td>2 Mild</td>
</tr>
<tr>
<td>3</td>
<td>3 Moderate</td>
</tr>
<tr>
<td>4 Moderately anxious or guarded so anxiety is inferred</td>
<td>4 Moderately severe</td>
</tr>
<tr>
<td>5</td>
<td>5 Severe</td>
</tr>
<tr>
<td>6</td>
<td>6 Very severe</td>
</tr>
<tr>
<td>7 Equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions</td>
<td>7 Extremely severe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agitation</th>
<th>Orientation and clouding of sensorium</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Observation</strong></td>
<td><strong>Ask</strong> “What day is this? Where are you? Who am I?” <strong>Observation</strong></td>
</tr>
<tr>
<td>0 Normal activity</td>
<td>0 Orientated and can do serial additions</td>
</tr>
<tr>
<td>1 Somewhat more than normal activity</td>
<td>Ask person to perform serial addition of 3s up to 30 e.g. 3, 6, 9.</td>
</tr>
<tr>
<td>2</td>
<td>1 Cannot do serial addition or is uncertain about date</td>
</tr>
<tr>
<td>3</td>
<td>2 Disoriented by date by no more than 2 calendar days</td>
</tr>
<tr>
<td>4 Moderately fidgety and restless</td>
<td>3 Disoriented for date by more than 2 calendar days</td>
</tr>
<tr>
<td>5</td>
<td>4 Disoriented for place and/or person</td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7 Paces back and forth during most of the interview or constantly thrashes about</td>
<td></td>
</tr>
</tbody>
</table>

This Withdrawal Assessment Scale for Alcohol (CIWA-Ar) was developed by the Addiction Research Foundation Clinical Institute, Toronto
## Alcohol Withdrawal Observation Chart (DASC) cont.

### Observations

<table>
<thead>
<tr>
<th>SURNAME</th>
<th>FIRST NAME</th>
<th>AGE</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Breath alcohol reading
- Blood glucose reading
- Temperature (per axilla)
- Pulse
- Respiration rate
- Blood pressure

### Alcohol Withdrawal Assessment Score

<table>
<thead>
<tr>
<th>Nausea and vomiting</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paroxysmal sweats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactile disturbances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditory disturbances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual disturbances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache, fullness in head</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation and clouding of sensorium</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total score**

**AWS score**
- <8 Mild withdrawal
- 8–25 Moderate to severe withdrawal
- >25 Very severe withdrawal

**Checklist**
- Diazepam protocol (refer to page 4)
- Thiamine 100 mg IM/IV on first day
- Ensure adequate hydration
- Refer to page 1 & 4 for appropriate management
Appendix 4A: Alcohol Withdrawal Observation Chart (DASC) cont.

MEDICAL MANAGEMENT OF ACUTE ALCOHOL WITHDRAWAL

When alcohol withdrawal is the reason for admission and assessed as likely to be moderate to severe (from the history), diazepam loading of the patient prior to significant withdrawal becoming evident is desirable—Protocol 1. However, when alcohol withdrawal complicates an admission for another reason and the first indication is when alcohol withdrawal becomes evident, the appropriate action is to treat withdrawal according to the signs and symptoms experienced by the patient and reflected in the Alcohol Withdrawal Score (AWS)—Protocol 2.

Protocol 1

(a) Loading regime (when significant withdrawal is predicted): refer to Inpatient Alcohol Withdrawal: Use Of Diazepam

Loading with diazepam by weight is commenced—for the first day:

- <75 kg: 20 mg oral 2 hourly for 3 doses (i.e. 60 mg total)
- 75–90 kg: 20 mg oral 2 hourly for 4 doses (i.e. 80 mg total)
- >90 kg: 20 mg oral 2 hourly for 5 doses (i.e. 100 mg total)

thereafter 20 mg diazepam oral 2 hourly until AWS score is 10 or less

- further medical assessment is required for doses beyond 120 mg
- if AWS score rises to 15 or more recommence diazepam 20 mg oral 2 hourly after further medical assessment
- diazepam 5–10 mg qid prn may be prescribed for subsequent days to a maximum of 4 days
- temazepam 10–20 mg nocte prn may be prescribed for night sedation for 3 nights

(b) Withdrawal convulsion prophylaxis (where there is a history of withdrawal seizures)

- Day 0: on the first day the patient should receive the above loading regime (to a minimum of 75 mg i.e. an additional 15 mg diazepam if the weight is <75kg)
- Day 1 & 2: diazepam 10 mg oral bd
- Day 3: diazepam 5 mg bd

If high AWS scores occur during the Day 0 loading phase, doses should be continued 2 hourly until the score is 10 or less. Note: withhold diazepam only if there are signs of intoxication (short periods of sleep are allowable).

Protocol 2

Alcohol withdrawal complicating other admission e.g. surgical procedures (and where intercurrent illness does not preclude diazepam)

- AWS score <6: sedation is generally not necessary, reassurance and attention to nursing environment usually sufficient. 4 hourly AWS observations.
- AWS score 8–25: where intercurrent illness does not preclude, diazepam 10–20 mg oral 2 hourly until AWS ≤8 and clinical sedation achieved. 2 hourly AWS observations, if AWS score >20 more intense nursing supervision required. If >80 mg diazepam is needed 2 hourly oxygen saturations are recommended. If >120 mg diazepam needed, seek specialist advice.
- AWS score >25: medical emergency, seek specialist advice. Slow IV diazepam 5 mg over 3–5 minutes, repeated if necessary up to 4 times in the first 30 minutes.

Protocol 3

Combined alcohol and benzodiazepine withdrawal

- Diazepam loading (as in Protocol 1 or 2 above) with a minimum dose of diazepam on Day 0 equivalent to the stated dose of benzodiazepine intake (to a maximum of 80 mg). This is given as 20 mg oral 2 hourly.
- Initially more diazepam may be required to manage acute alcohol withdrawal symptoms or to prevent convulsions. This should be given at a rate of 20 mg 2 hourly until the score has settled.
- During subsequent days inpatients will require a continuing gradual diazepam withdrawal regime—usually reducing by 10 mg per day to 40mg, thereafter by 5 mg per day. Doses are usually administered qid.
Appendix 4B: CIWA-Ar Alcohol Withdrawal Observation Chart

Clinical Institute Withdrawal Assessment For Alcohol - Revised 7 (CIWA-AR)

<table>
<thead>
<tr>
<th>Patient</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

Pulse or heart rate, taken for one minute:
Blood pressure:.........................

NAUSEA AND VOMITING - As "Do you feel sick to your stomach? Have you vomited?" Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no nausea and no vomiting</td>
</tr>
<tr>
<td>1</td>
<td>mild nausea with no vomiting</td>
</tr>
<tr>
<td>2</td>
<td>intermittent nausea with dry heaves</td>
</tr>
<tr>
<td>3</td>
<td>intermittent nausea with dry heaves</td>
</tr>
<tr>
<td>4</td>
<td>intermittent nausea with dry heaves</td>
</tr>
<tr>
<td>5</td>
<td>intermittent nausea with dry heaves and vomiting</td>
</tr>
<tr>
<td>6</td>
<td>intermittent nausea with dry heaves and vomiting</td>
</tr>
<tr>
<td>7</td>
<td>Constant nausea, frequent dry heaves and vomiting</td>
</tr>
</tbody>
</table>

TREMOR - Arms extended and fingers spread apart. Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no tremor</td>
</tr>
<tr>
<td>1</td>
<td>not visible, but can be felt fingertip to fingertip</td>
</tr>
<tr>
<td>2</td>
<td>Moderate, with patient's arms extended</td>
</tr>
<tr>
<td>3</td>
<td>Moderate, with patient's arms extended</td>
</tr>
<tr>
<td>4</td>
<td>Moderate, with patient's arms extended</td>
</tr>
<tr>
<td>5</td>
<td>Moderate, with patient's arms extended</td>
</tr>
<tr>
<td>6</td>
<td>Moderate, with patient's arms extended</td>
</tr>
<tr>
<td>7</td>
<td>Severe, even with arms not extended</td>
</tr>
</tbody>
</table>

PAROXYSMAL SWEATS - Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no sweat visible</td>
</tr>
<tr>
<td>1</td>
<td>Barely perceptible sweating, palms moist</td>
</tr>
<tr>
<td>2</td>
<td>beads of sweat obvious on forehead</td>
</tr>
<tr>
<td>3</td>
<td>beads of sweat obvious on forehead</td>
</tr>
<tr>
<td>4</td>
<td>beads of sweat obvious on forehead</td>
</tr>
<tr>
<td>5</td>
<td>beads of sweat obvious on forehead</td>
</tr>
<tr>
<td>6</td>
<td>drenching sweats</td>
</tr>
<tr>
<td>7</td>
<td>drenching sweats</td>
</tr>
</tbody>
</table>


Appendix 4B: CIWA-Ar Alcohol Withdrawal Observation Chart cont.

**ANXIETY** - Ask "Do you feel nervous?" Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no anxiety, at ease</td>
</tr>
<tr>
<td>1</td>
<td>mildly anxious</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>moderately anxious, or guarded, so anxiety is inferred</td>
</tr>
<tr>
<td>4</td>
<td>equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions</td>
</tr>
</tbody>
</table>

**AGITATION** - Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>normal activity</td>
</tr>
<tr>
<td>1</td>
<td>somewhat more than normal activity</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>moderately fidgety and restless</td>
</tr>
<tr>
<td>4</td>
<td>paces back and forth during most of the interview, or constantly thrashes about</td>
</tr>
</tbody>
</table>

**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?" Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>very mild itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>2</td>
<td>mild itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>3</td>
<td>moderate itching, pins and needles, burning or numbness</td>
</tr>
<tr>
<td>4</td>
<td>moderately severe hallucinations</td>
</tr>
<tr>
<td>5</td>
<td>severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>extremely severe hallucinations</td>
</tr>
<tr>
<td>7</td>
<td>continuous hallucinations</td>
</tr>
</tbody>
</table>

**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 to you? Are you hearing things you know are not there?" Observation.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>not present</td>
</tr>
<tr>
<td>1</td>
<td>very mild harshness or ability to frighten</td>
</tr>
<tr>
<td>2</td>
<td>mild harshness or ability to frighten</td>
</tr>
<tr>
<td>3</td>
<td>moderate harshness or ability to frighten</td>
</tr>
<tr>
<td>4</td>
<td>moderately severe hallucinations</td>
</tr>
<tr>
<td>5</td>
<td>severe hallucinations</td>
</tr>
<tr>
<td>6</td>
<td>extremely severe hallucinations</td>
</tr>
<tr>
<td>7</td>
<td>continuous hallucinations</td>
</tr>
</tbody>
</table>
Appendix 4B: CIWA-Ar Alcohol Withdrawal Observation Chart cont.

**VISUAL DISTURBANCES** - 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?" Observation.

<table>
<thead>
<tr>
<th>Severity</th>
<th>CIWA-AR score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Moderate</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Severe</td>
<td>20+</td>
</tr>
</tbody>
</table>

**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 lightheadedness. Otherwise, rate severity.

<table>
<thead>
<tr>
<th>Severity</th>
<th>CIWA-AR score</th>
</tr>
</thead>
<tbody>
<tr>
<td>not present</td>
<td>0</td>
</tr>
<tr>
<td>very mild sensitivity</td>
<td>1</td>
</tr>
<tr>
<td>mild sensitivity</td>
<td>2</td>
</tr>
<tr>
<td>moderate sensitivity</td>
<td>3</td>
</tr>
<tr>
<td>moderately severe hallucinations</td>
<td>4</td>
</tr>
<tr>
<td>severe hallucinations</td>
<td>5</td>
</tr>
<tr>
<td>extremely severe hallucinations</td>
<td>6</td>
</tr>
<tr>
<td>continuous hallucinations</td>
<td>7</td>
</tr>
</tbody>
</table>

**ORIENTATION AND CLOUDING OF SENSORIUM** Ask "What day is this? Where are you? Who am I?"

<table>
<thead>
<tr>
<th>Severity</th>
<th>CIWA-AR score</th>
</tr>
</thead>
<tbody>
<tr>
<td>oriented and can do serial additions</td>
<td>0</td>
</tr>
<tr>
<td>cannot do serial additions or is uncertain about date</td>
<td>1</td>
</tr>
<tr>
<td>disoriented for date by no more than 2 calendar days</td>
<td>2</td>
</tr>
<tr>
<td>disoriented for date by more than 2 calendar days</td>
<td>3</td>
</tr>
<tr>
<td>disoriented for place and/or person</td>
<td>4</td>
</tr>
</tbody>
</table>

Total CIWA-AR Score:..............

Rater's Initials:

Maximum Possible Score 67
## Modified Finnegan Withdrawal Scale

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>SIGNS &amp; SYMPTOMS</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTRAL NERVOUS SYSTEM DISTURBANCES</td>
<td>High-Pitched Cry</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Continuous High-Pitched Cry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sleeps &lt;1 hour after feeding</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sleeps &lt;2 hours after feeding</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Sleeps &gt;3 hours after feeding</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mild Tremors Disturbed</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mod-Severe Tremors Disturbed</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mild Tremors Undisturbed</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mod-Severe Tremors Undisturbed</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Increased Muscle Tone</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Excoriation (Specify area)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Myoclonic Jerks</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Generalised Convulsions</td>
<td>5</td>
</tr>
<tr>
<td>METABOLIC/VASOMOTOR/ RESPIRATORY DISTURBANCES</td>
<td>Fever (37.3°C – 38.3°C)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Fever (38.4°C and higher)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Frequent Yawning (&gt;3-4 times)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nasal Stiffness</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sneezing (&gt;3-4 times)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nasal Flaring</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Respiratory Rate &gt;60/min</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Respiratory Rate &gt;60/min with retractions</td>
<td>2</td>
</tr>
<tr>
<td>GASTROINTESTINAL DISTURBANCES</td>
<td>Excessive Sucking</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Poor Feeding</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Regurgitation</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Projectile Vomiting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Loose Stools</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Watery Stools</td>
<td>3</td>
</tr>
</tbody>
</table>

Max Score: 41  TOTAL SCORE

From NSW Methadone Maintenance Treatment Clinical Practice Guidelines. Used with permission. For additional scoring information see Extra Scoring Information sheet.
Appendix 5: Neonatal Abstinence Syndrome Scoring Chart cont.

Guidelines for Neonatal Abstinence Syndrome (NAS) Scoring

Score 1 for each of the following (except 1).

1. **High-pitched cry:** Score 2 if a cry is high-pitched at its peak, score 3 if a cry is high-pitched throughout.

2. **Sleep:** Consider total amount of time baby was asleep between feeds.

3. **Tremors:** This is a scale of increasing severity, and only one score should be made from the four categories. Undisturbed sleep means when the baby is asleep or at rest in a cot.

4. **Increased muscle tone:** Score if the baby has a generalised muscle tone greater than the upper limit of normal.

5. **Excoriation:** Score if excoriation occurs more than three to four times in 30 minutes.

6. **Nasal flaring:** Score if nasal flaring is present without other evidence of airways disease.

7. **Respiratory rate:** Score if respiratory rate of greater than 60 per minute is present without other evidence of airways disease.

8. **Excessive sucking:** Score if the baby sucks more than average.

9. **Poor feeding:** Score if the baby is very slow to feed or takes inadequate amounts.

10. **Regurgitation:** Score only if the baby regurgitates more frequently than usual in newborn infants.

Modifications for prematurity are mainly necessary in the sections on sleeping, e.g. a baby who needs three-hourly feeds can only sleep at most 2.5 hours between them. Scoring should be one if baby sleeps less than two hours, 2 if sleeps less than one hour, and 3 if the baby does not sleep between feeds. Many premature babies require tube feeding. Babies should not be scored for poor feeding if tube feeding is customary for their period of gestation.

If the baby has three consecutive scores averaging more than eight (8), the child should be treated for Neonatal Abstinence Syndrome (NAS).
Appendix 6: Objective Opiate Withdrawal Assessment Scale (OOWS)

Surname: ___________________________  Given name: ___________________________

Date of birth: ________________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature</th>
<th>Pulse</th>
<th>Respiration rate</th>
<th>Blood pressure</th>
<th>Pupil size and reaction</th>
<th>Weight</th>
</tr>
</thead>
</table>

Observe the person during a five minute observation period. Then indicate a score for each of the opioid withdrawal signs.

<table>
<thead>
<tr>
<th>Date</th>
<th>Opioid Withdrawal Signs</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yawning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = no yawns</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = &gt;1 yawn</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Rhinorrhoea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = &lt;3 sniffs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = &gt;3 sniffs</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Piloerection (arm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Perspiration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Lacrimation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hot and cold flushes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = shivering/ huddling for warmth</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Mydriasis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = &gt;3mm</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Tremor (hands)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 6: Objective Opiate Withdrawal Assessment Scale (OOWS) cont.

<table>
<thead>
<tr>
<th></th>
<th>Symptom</th>
<th>Definition</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Restlessness</td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = frequent changes of position</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Anxiety</td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = frequent</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Muscle twitches</td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Vomiting</td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Abdominal cramps</td>
<td>0 = absent</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = present</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL SCORE**
Appendix 6A: Subjective Opiate Withdrawal Assessment Scale (SOWS)

Surname: ____________________________  Given name: ____________________________

Date of birth: _______________________

Please score each item below according to how you feel now.

0 = not at all    1 = a little    2 = moderately    3 = quite a bit    4 = extremely

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I feel anxious
2. I feel like yawning
3. I am perspiring
4. My eyes are teary
5. My nose is running
6. I have goosebumps
7. I am shaking
8. I have hot flushes
9. I have cold flushes
10. My bones and muscles ache
11. I feel restless
12. I feel nauseous
13. I feel like vomiting
14. My muscles twitch
15. I have stomach cramps
16. I feel like using now

TOTAL SCORE
### Appendix 7: Benzodiazepine Withdrawal Assessment Scale

**Drug & Alcohol Services Council, SA, 2002**

Vital signs to be taken daily—otherwise at the discretion of clinical staff.

**Note:** Total Score is indicative of increasing or decreasing severity of withdrawal. Scores are not directly linked to pharmacological management as occurs with alcohol scores based on the CIWA-Ar.

<table>
<thead>
<tr>
<th>Name:</th>
<th>.................................................................</th>
<th>UR:</th>
<th>.................................................</th>
</tr>
</thead>
</table>

**Date**

**Time**

**Blood pressure**

<table>
<thead>
<tr>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse</td>
</tr>
</tbody>
</table>

**Respiration rate**

**Benzodiazepine assessment score—Range 0, 1, 4 or 7 (see next page)**

<table>
<thead>
<tr>
<th>1</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Restlessness/agitation</td>
</tr>
<tr>
<td>3</td>
<td>Palpitations</td>
</tr>
<tr>
<td>4</td>
<td>Headache</td>
</tr>
<tr>
<td>5</td>
<td>Concentration</td>
</tr>
<tr>
<td>6</td>
<td>Appetite</td>
</tr>
</tbody>
</table>

**TOTAL**

<table>
<thead>
<tr>
<th>Sleep (0700)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff observation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sleep (0800)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client observation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other symptoms</th>
</tr>
</thead>
</table>
### Appendix 7: Benzodiazepine Withdrawal Assessment Scale cont.

**Drug & Alcohol Services Council, SA, 2002**

These questions refer to how the person is feeling **right now**, at the present moment.

<table>
<thead>
<tr>
<th></th>
<th><strong>Anxiety</strong></th>
<th></th>
<th><strong>Headache</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Do you feel nervous?’</td>
<td></td>
<td>Ask ‘Do you have a headache or feeling of fullness in the head?’</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>No anxiety—at ease</td>
<td>0</td>
<td>No headache</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
<td>1</td>
<td>Mild</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Moderately anxious or guarded so anxiety is inferred</td>
<td>4</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions</td>
<td>7</td>
<td>Severe</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><strong>Restlessness/Agitation</strong></th>
<th></th>
<th><strong>Concentration</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Do you feel more restless or agitated than you are normally?’</td>
<td></td>
<td>Ask ‘Do you have any difficulty concentrating?’</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Normal activity</td>
<td>0</td>
<td>No difficulty concentrating</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Somewhat more than normal activity</td>
<td>1</td>
<td>Mild</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Moderately fidgety or restless</td>
<td>4</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Unable to sit or stand still</td>
<td>7</td>
<td>Severe</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><strong>Palpitations</strong></th>
<th></th>
<th><strong>Appetite</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Are you aware of your heart racing in your chest?’</td>
<td></td>
<td>Ask ‘Have you noticed any change in your appetite?’</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>No palpitations</td>
<td>0</td>
<td>No loss of appetite</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Mild palpitations</td>
<td>1</td>
<td>Slight loss</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Moderate awareness of heartbeat</td>
<td>4</td>
<td>Moderate loss</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Aware of heart racing constantly</td>
<td>7</td>
<td>Complete loss of appetite, unable to eat at all</td>
<td></td>
</tr>
</tbody>
</table>

### Sleep

(0800 observations only—not to be included in total score)

*Ask ‘How did you sleep last night?’*

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Sufficient sleep</td>
<td>0</td>
<td>No loss of appetite</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Some sleep</td>
<td>1</td>
<td>Slight loss</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Moderately/restless sleep</td>
<td>4</td>
<td>Moderate loss</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>No sleep</td>
<td>7</td>
<td>Complete loss of appetite, unable to eat at all</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 8: Amphetamine Withdrawal Assessment Scale

Drug & Alcohol Services Council, SA, 2002

Note: Only use in isolation from other withdrawal scales where the person has solely an amphetamine use problem.

Note: Total Score is indicative of increasing or decreasing severity of withdrawal. Scores are not directly linked to pharmacological management as occurs with alcohol scores based on the CIWA-Ar.

Surname: ............................................. Given name: ..................................................

Date of birth: ..........................................

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature</th>
<th>Pulse</th>
<th>Respiration rate</th>
<th>Blood pressure</th>
<th>Weight</th>
</tr>
</thead>
</table>

Score range = 0-7

<table>
<thead>
<tr>
<th>Irritability</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Racing thoughts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restlessness/Agitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feelings of unreality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drowsiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea/Vomiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sleep (0800 obs only)

| Other symptoms |                      |                      |                      |                      |                      |       |
Appendix 8: Amphetamine Withdrawal Assessment Scale cont.

These questions refer to how the person is feeling **right now**, at the present moment.

|   | Irritability—Observation |   |   |      |    | Feels of unreality |   |   |      |    |
|---|-------------------------|---|---|------|    |                  |---|---|------|    |
|   | Ask ‘Do you feel irritable?’ |   |   | No irritability | Mild | Moderate | Severe | 0 | No feel that things around you are not real or change in shape? | 1 | Moderate |
|   |                          |   |   | 1     | Mild | Moderate | Severe | 4 |                     | 4 | Moderate |
|   |                          |   |   | 4     |      | Severe   |        | 7 | everything looks strange or different | 7 |                     |

|   | Depression—Observation |   |   |      |    | Drowsiness—Observation |   |   |      |    |
|---|------------------------|---|---|------|    |                  |---|---|------|    |
|   | Ask ‘Do you feel sad?’  |   |   | No sadness | Slow to respond but reactive | Moderately withdrawn | Withdrawn, unresponsive | 0 | No drowsiness | 1 | Mild |
|   |                          |   |   | 1     | Mild | Moderate | Severe | 4 |                     | 4 | Moderate |
|   |                          |   |   | 4     |      | Severe   |        | 7 | severe, cannot keep awake | 7 |                     |

|   | Racing thoughts         |   |   |      |    | Nausea/Vomiting—Observation |   |   |      |    |
|---|------------------------|---|---|------|    |                  |---|---|------|    |
|   | Ask ‘Are your thoughts racing?’ |   |   | No racing thoughts | Mild | Moderate | Severe | 0 | No nausea or vomiting | 1 | Mild |
|   |                          |   |   | 1     | Mild | Moderate | Severe | 4 |                     | 4 | Intermittent nausea with dry retching |
|   |                          |   |   | 4     |      | Severe   |        | 7 | Constant nausea, frequent dry retching/vomiting | 7 |                     |

|   | Restlessness/Agitation |   |   |      |    | Sleep |   |   |      |    |
|---|------------------------|---|---|------|    |      |---|---|------|    |
|   | Ask ‘Do you feel more restless or agitated than you are normally?’ |   |   | Normal activity | Some what more than normal activity | Moderately fidgety or restless | Unable to sit or stand still | 0 | Sufficient sleep | 1 | Some sleep |
|   |                          |   |   | 1     | More than normal activity | Moderately fidgety or restless | Unable to sit or stand still | 4 |                     | 4 | Moderate/restless sleep |
|   |                          |   |   | 4     |      | Severe   |        | 7 |                     | 7 | No sleep |
Appendix 9: Cannabis Withdrawal Assessment Scale

Drug & Alcohol Services Council, SA, 2002

Note: Total Score is indicative of increasing or decreasing severity of withdrawal. Scores are not directly linked to pharmacological management as occurs with alcohol scores based on the CIWA-Ar.

Surname: ___________________  Given name: ___________________

Date of birth: ___________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature</th>
<th>Pulse</th>
<th>Respiration rate</th>
<th>Blood pressure</th>
<th>Pupil size</th>
<th>Reaction</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Score range = 0-7

<table>
<thead>
<tr>
<th>Restlessness/Agitation</th>
<th>Racing thoughts</th>
<th>Mood changes</th>
<th>Feelings of unreality</th>
<th>Fear</th>
<th>Drowsiness</th>
<th>Hunger</th>
<th>Appetite</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sleep (0800 obs only)

<table>
<thead>
<tr>
<th>Other symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
Appendix 9: Cannabis Withdrawal Assessment Scale cont.

Drug & Alcohol Services Council, SA, 2002

These questions refer to how the person is feeling **right now**, at the present moment.

<table>
<thead>
<tr>
<th></th>
<th>Restlessness/Agitation—Observation</th>
<th>Fear</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Do you feel more restless than you are normally?’</td>
<td>Ask ‘Do you feel fearful?’</td>
</tr>
<tr>
<td>0</td>
<td>Normal activity</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Somewhat more than normal activity</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Moderately fidgety or restless</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Unable to sit or stand still</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Racing thoughts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Are your thoughts racing?’</td>
</tr>
<tr>
<td>0</td>
<td>No racing thoughts</td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>Severe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Drowsiness—Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Do you feel sleepy or drowsy?’</td>
</tr>
<tr>
<td>0</td>
<td>No drowsiness</td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>Severe, unable to stay awake</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mood changes—Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Are your moods changing over a short period (hours)?’</td>
</tr>
<tr>
<td>0</td>
<td>No mood changes, feels stable</td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>Severe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Hunger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Do you feel hungry?’</td>
</tr>
<tr>
<td>0</td>
<td>No hunger</td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>Severe and constant feelings of hunger</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Feelings of unreality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Do you feel that things around you are not real or change in shape?’</td>
</tr>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>Mild</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>Severe feelings of unreality, everything looks strange or different</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Appetite</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘Have you noticed any change in your appetite?’</td>
</tr>
<tr>
<td>0</td>
<td>No loss of appetite</td>
</tr>
<tr>
<td>1</td>
<td>Slight loss</td>
</tr>
<tr>
<td>4</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>Complete loss of appetite, unable to eat at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask ‘How did you sleep last night?’</td>
</tr>
<tr>
<td>0</td>
<td>Sufficient sleep</td>
</tr>
<tr>
<td>1</td>
<td>Some sleep</td>
</tr>
<tr>
<td>4</td>
<td>Moderate/restless sleep</td>
</tr>
<tr>
<td>7</td>
<td>No sleep</td>
</tr>
</tbody>
</table>
Section 5
Reference
List of contact numbers in each state and territory

South Australia
Alcohol & Drug Information Service (ADIS)
1300 131 340 (24 hrs/day)

New South Wales
Alcohol & Drug Information Service (ADIS)
(02) 9361 8000
1800 422 599

Queensland
Alcohol & Drug Information Service (ADIS)
(07) 3236 2414
1800 177 833

Victoria
Direct Line
(03) 9418 1000
1800 136 385

Western Australia
Alcohol & Drug Information Service (ADIS)
(08) 9442 5000
1800 198 024

Northern Territory
Amity Community Services
(08) 8981 8030
1800 629 683

Crisis Line (General counselling line, handling all alcohol and drug, and other enquiries)
1800 019 116

Tasmania
Alcohol & Drug Information Service (ADIS)
(03) 6233 6722
1800 811 994

ACT
Alcohol & Drug Program
(02) 6205 4545
Alcoholics Anonymous (AA) contacts are:
National Office (02) 9663 1206
Sydney City Help Line (02) 9261 0065
Canberra (02) 6249 1340
Melbourne (03) 9429 1833
Hobart (03) 6234 8711
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