

Issues for Special Consideration

Pregnancy and Drug Use

DRUG and alcohol use during pregnancy is known to cause a range of adverse effects. Early detection and intervention with women who are pregnant and using drugs is an effective way of improving pregnancy outcome.

As with all other aspects of health care an empathic, non-judgemental approach will build rapport and foster a therapeutic relationship. This will allow a comprehensive assessment to be undertaken and ongoing care to be initiated.

ASSESSMENT

The goals of the assessment process are to:

- determine the quantity and frequency of alcohol and other drug use from the date of the woman's last menstrual period
- establish whether substance use is continuing
- assess the possible impact of the substance use on the pregnancy
- provide factual information about the effects of alcohol and drug use during pregnancy
- explore a range of choices for action

Determine the quantity and frequency of alcohol and other drug use from the date of the woman's last menstrual period

Obtaining this information requires the same skills as for any other history. Detailed information on how to obtain a drug and alcohol history is available in Chapter 2.



See Chapter 2
General Principles

Establish whether substance use is continuing

For most women confirmation of pregnancy is a powerful incentive to cease all alcohol and other drug use. However for a small percentage of women this is not possible because:

- they may be unaware of the possible risks of continued use
- they may not be able to stop by themselves
- it may be inadvisable for them to stop abruptly e.g. women dependent on heroin or benzodiazepines

An exploration of each woman's readiness to change and her resources to achieve change is necessary when undertaking an assessment.

Using a Motivational Interviewing style as described in Chapter 13 may be helpful.



See Chapter 13
Psychosocial Interventions

Assess the impact of substance use on the pregnancy

Most women are very concerned about the effects of the drug use on their pregnancy and developing foetus. As many pregnancies are unexpected, women are concerned about damage they may have done prior to finding out about the pregnancy. Some feel pressure or are pressured into considering terminations because of their drug or alcohol use.



Provide factual information about the effects of substance use during pregnancy

Factual information about drug effects will assist women in deciding what is the best choice of action for their individual circumstances.

Explore a range of choices for action

A range of choices for pregnant women is desirable, whether they decide to continue with the pregnancy or to continue or modify their drug use. If a decision to continue the pregnancy is made, pregnancy (antenatal) care is a priority.

Adequate pregnancy care, even in the face of continued substance use will improve outcomes for the mother and baby.

The range of substance use treatment choices available will depend upon each individual's resources and the treatment options available. Consultation with and/or referral to specialist drug and alcohol treatment services is recommended.

The goal of intervention is to facilitate cessation or reduction of drug use or transfer to a safer alternative such as methadone maintenance or nicotine replacement therapy.

INFORMATION ON ALCOHOL AND DRUG EFFECTS

The effects of substance use during pregnancy vary and are dependent on multiple factors:

- type and amount of substances used
- route of administration
- timing and duration of use
- concurrent drug use, particularly tobacco
- maternal nutrition and health status
- amount and quality of pregnancy care

Each woman's individual experience needs to be carefully assessed and possible risks explained. The art is to provide balanced information without scaring women unnecessarily and without minimising the possible risks of continued use.

Research on the extent and effects of prenatal exposure to alcohol and other drugs is complex and sometimes contradictory. There are multiple methodological challenges with this research. These include:

- finding appropriate samples of pregnant women
- difficulty in isolating effects of a particular substance
- determining the relationship between the effects and both the amount of substance used and the timing of use during pregnancy

Finally there is the issue of bias which may influence what studies are published (Brady et al., 1994).

Despite the attention given to illicit substances such as heroin and cocaine it is the licit substances, alcohol and tobacco that are the

more commonly used by women during pregnancy and whose known adverse consequences are more significant.

Alcohol

Alcohol is the drug most commonly used by women in Australia and it can be toxic to the developing foetus. Research implicates alcohol in a wide range of prenatal (during pregnancy), foetal and infant effects.

Women are advised to think carefully about drinking alcohol during pregnancy however the infrequent consumption of one standard drink is thought to be unlikely to have any adverse consequences.

Prenatal effects

- increased risk of spontaneous abortion (miscarriage) and stillbirth
- premature birth
- reduced birth size and weight

Foetal effects

The effects of alcohol exposure on the foetus are related to:

- the amount of alcohol ingested
- the stage of pregnancy
- the general health of the woman

These effects occur along a continuum from a small decrease in cognitive functioning to Foetal Alcohol Syndrome (Day & Richardson, 1994).



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Foetal Alcohol Syndrome (FAS)

The cardinal features of FAS include:

- slow growth before and after birth involving height, weight and head circumference
- anomalies of brain structure and function resulting in development delay and disability
- a consistent pattern of birth defects including minor structural anomalies of the face together with heart and limb deformities in some instances

Severe effects of alcohol use during pregnancy such as foetal death, severe developmental disability and the cranio-facial deformities are associated with chronically high alcohol intake throughout pregnancy i.e. 42 standard drinks per week or more (Jacobson & Jacobson, 1994).

Infants born to women who are dependent on alcohol are at risk of developing withdrawal.

Alcohol and breastfeeding

The level of alcohol in breast milk is the same as the woman's blood alcohol level. The infant's brain is sensitive to alcohol therefore alcohol use while breastfeeding is not recommended.

For women who do not wish to stop using alcohol during lactation the following harm reduction strategy is suggested:

- consume alcohol at times when it will have minimal effect on breast milk
- drink no more than one standard drink after the infant has been fed and settled

This level of consumption is not considered harmful as long as another feed is not undertaken for 2 to 4 hours since the alcohol will be metabolised during this time (Capus & Holmes, 1997).

Tobacco

Nicotine, carbon monoxide and other constituents of tobacco smoke restrict the oxygen supply to the foetus. Women who smoke during pregnancy have infants that are significantly smaller and of shorter gestation compared with women who do not smoke. However based on findings in the available literature, smoking during pregnancy is unlikely to cause an increase in the congenital malformation rate (Woods & Raju, 2001).

Prenatal effects

- increased risk of miscarriage
- increased risk of premature labour

Foetal effects

- reduced foetal growth. Birthweight decreases in direct proportion to the number of cigarettes smoked.
- premature birth

Infant effects

There is an increased risk of Sudden Infant Death Syndrome (SIDS) associated with maternal smoking during pregnancy. There is also evidence that household exposure to tobacco smoke after birth has an independent additive effect. Parental drug misuse has an additional small but significant effect on the risk of SIDS (Blair et al., 1996) and increased incidence of respiratory infections, asthma and middle ear infections.

Smoking and breastfeeding

Tobacco use reduces the breast milk supply. Due to the risk of passive smoking exposure to the infant smoking is best avoided prior to, during or within the vicinity of a feeding infant. As a harm reduction measure, smoke after baby's feed only and not within their general vicinity.

Cannabis

The impact of cannabis use on pregnancy is similar to that of tobacco but the evidence is less compelling, and compounded by the concurrent use of tobacco, for women who use cannabis (Hall & Solowij, 1998).

Foetal effects

- reduced birthweight
- possible increase in premature birth rate

Infant effects

Although a number of infant neurobiological and developmental abnormalities have been reported in some studies the clinical significance of these findings are unclear at this time (Hall & Solowij, 1998).

Cannabis and breastfeeding

Breastfeeding whilst using cannabis is not recommended.



Heroin

Babies born to women dependent on heroin tend to be of lower birthweight than those born to women maintained on methadone or non-drug using women.

Heroin using women are also at increased risk of:

- premature delivery
- antepartum haemorrhage
- intra-uterine foetal death

It is unclear whether these effects are specific to heroin use or to the poor health and nutritional status of women dependent on an illicit substance (Ward et al., 1998, Kaltenbach et al., 1998).

Adequate pregnancy care for heroin dependent women can improve pregnancy outcome (Keen & Alison, 2001).

Prenatal effects

- increased risk of miscarriage
- increased risk of placental insufficiency
- premature labour
- increased rate of breech presentation
- increased risk of intrauterine foetal death

Foetal effects

- reduced birthweight, head circumference
- foetal distress (meconium staining)
- premature birth
- increased risk of bloodborne virus infection: hepatitis B & C, HIV

Infant effects

- Neonatal Abstinence Syndrome (NAS)
- increased incidence of SIDS

The long-term developmental outcomes are uncertain, particularly behavioural problems,

as these are related to environmental, social and parenting factors after birth; not just prenatal heroin exposure (Brady et al., 1994).

Methadone maintenance treatment

The treatment of choice for pregnant women who are heroin dependent is methadone maintenance. Pregnant women have priority access to treatment services. Slow reductions in methadone dose are possible during the second trimester of pregnancy under medical supervision.

Methadone and breastfeeding

The advantages of breastfeeding outweigh any potential disadvantages of women on methadone breastfeeding. Only low levels of methadone are present in breast milk (Ward et al., 1998). Women on higher doses of methadone (80 mg or more) are advised to wean their infants slowly to reduce the risk of withdrawal symptoms.

Women who are hepatitis C positive are advised to stop breast feeding if they develop bleeding nipples.

Women who are using illicit drugs while breast feeding should be advised to express and discard their breast milk until they stop using or are stabilised on methadone treatment (Capus & Holmes, 1997).



For more detailed information see Ward et al. (1998)

Psychostimulants — Amphetamines and Cocaine

The impact of psychostimulants on pregnancy varies considerably due to a number of factors:

- gestational period in which the drug exposure occurs
- amount of and pattern of drug use
- differences in metabolism

Malformations and long-term behavioural effects are not all or nothing phenomena. Whether damage occurs depends on interacting factors such as nutritional status, genetic differences, polydrug use, and environmental and social status. The continued use of psychostimulants in pregnancy will increase the risk of adverse pregnancy outcomes (Plessinger, 1998).

Prenatal effects

- maternal hypertension
- placental abruption and haemorrhage
- premature labour

Foetal effects

- premature birth
- foetal distress (meconium staining)
- reduced birthweight, head circumference
- possible increased risk of congenital malformations

However a large, prospective, systematic evaluation for congenital anomalies did not identify an increased number or consistent pattern of malformation associated with psychostimulant use during pregnancy (Behnke et al., 2001).

Infant effects

- possible increased risk of behavioural problems but inconclusive evidence at this time

Ecstasy

No conclusive information on the impact of ecstasy use on pregnancy was available at the time of writing.

NEONATAL ABSTINENCE SYNDROME (NAS)

Infants prenatally exposed to heroin or methadone have a high incidence of Neonatal Abstinence Syndrome (NAS).

NAS is a generalised disorder characterised by signs and symptoms of:

- Central nervous system hyperirritability — increased muscle tone, disturbed sleep pattern, irritability and tremor
- gastrointestinal dysfunction — excessive yet uncoordinated sucking, poor feeding, vomiting and diarrhoea
- respiratory distress — nasal flaring, tachypnoea, chest recession
- vague autonomic symptoms — yawning, sneezing, mottling and fever

The majority of symptoms appear within 72 hours of birth. Many factors impact on the severity of NAS including:

- the nature and dosage of drugs used; and
- time of last use

Heavy benzodiazepine use during pregnancy may exacerbate and prolong the course of NAS. The type of labour and the use of anaesthetics and analgesia can also impact on severity of NAS as does the size and gestational age of the infant. Full term infants require treatment for NAS more often than premature infants. The relationship between maternal methadone dose and the severity of NAS has been difficult to establish (Kaltenbach et al., 1998).

Management of Neonatal Abstinence Syndrome

Infants at risk of NAS are monitored using a modified score chart developed originally by Dr Loretta Finnegan. Pharmacotherapy treatment is instigated when scores reach a

predetermined level and the infant is at risk of serious health consequences if not treated. An aqueous solution of morphine administered orally is the most common medication used to manage NAS in Australia.

Mothercraft techniques can provide significant symptom relief to the infant experiencing mild to moderate NAS. Swaddling in cotton sheets and the use of swing cradles or hammocks for sleeping has a calming effect. Dummies provide an opportunity to suck, which also has a settling effect (Capus & Holmes, 1997).

Neonatal Abstinence Syndrome can have a negative impact on mother–infant bonding if not effectively managed. Separation of mother and infant during the treatment of NAS should be minimised. The ongoing treatment of NAS can be successfully managed via a specialist outpatient clinic once the infant is stable on medication thus reducing separation and inpatient length of stay (Oei et al., 2001).

CHILD PROTECTION

Studies of drug using parents indicate that many were victims of child abuse and/or had poor parenting. These parents are at increased risk of neglecting or abusing their children (Keen & Alison, 2001).

It is vital that the wellbeing of infants born to drug using parents is assessed prior to their discharge from hospital. A discharge-planning meeting including the family and all health and welfare professionals involved with the family is required and management plans agreed to and documented. Where risk of neglect or abuse is identified the statutory child protection services must be involved in the care planning and ongoing monitoring of the family.

REFERENCES

- Behnke, M., Eyler, F., Garvan, C. & Wobie, K. 2001, 'The search for congenital malformations in newborns with fetal cocaine exposure', *Pediatrics*, vol. 107, no. 5.
- Blair, P., Fleming, P., Bensley, D., Smith, I., Bacon, C., Taylor, E., Berry, J., Golding, J. & Tripp, J. 1996, 'Smoking and the sudden infant death syndrome: Results from 1993–5 case-control study for confidential inquiry into stillbirths and deaths in infancy', *British Medical Journal*, vol. 313, no. 7015, pp. 195–198.
- Brady, J., Posner, M., Lang, C. & Rosati, M. 1994, 'Risk and reality: The implications of prenatal exposure to alcohol and other drugs' [Online], <http://aspe.os.dhhs.gov/hsp/cyp/drugkids.htm>.
- Capus, C. & Holmes, J. 1997, 'Drugs in pregnancy', in *Nursing Care of Drug & Alcohol Problems*, ed. Novak, H., Drug & Alcohol Department, CSAHS, Camperdown, Sydney.
- Day, N. & Richardson, G. 1994, 'Comparative teratogenicity of alcohol and other drugs', *Alcohol Health and Research World*, vol. 18, no. 1, pp. 42–48.
- Hall, W. & Solowij, N. 1998, 'Adverse effects of cannabis', *Lancet*, vol. 352, pp. 1611–1616.
- Jacobson, J. & Jacobson, S. 1994, 'Prenatal alcohol exposure and neurobehavioural development: Where is the threshold?', *Alcohol Health and Research World*, vol. 18, no. 1, pp. 30–36.
- Kaltenbach, K., Berghella, V. & Finnegan, L. 1998, 'Opioid dependence during pregnancy: Effects and management.', *Obstetrics and Gynecology Clinics of North America*, vol. 25, no. 1, pp. 139–151.
- Keen, J. & Alison, L. 2001, 'Drug misusing parents: Key points for health professionals.', *Archives of Disease in Childhood*, vol. 85, no. 4, pp. 296–299.
- Oei, J., Feller, J. & Lui, K. 2001, 'Coordinated outpatient care of the narcotic-dependent infant.', *Journal Paediatric Child Health*, vol. 37, pp. 266–270.
- Plessinger, M. 1998, 'Prenatal exposure to amphetamines: Risks and adverse outcomes in pregnancy.', *Obstetrics and Gynecology Clinics of North America*, vol. 25, no. 1, pp. 119–138.
- Ward, J., Mattick, R. & Hall, W. 1998, *Methadone Maintenance Treatment and other Opioid Replacement Therapies*, Harwood Academic Publishers, Netherlands.
- Woods, S. & Raju, U. 2001, 'Maternal smoking and the risk of congenital birth defects: A cohort study', *The Journal of the American Board of Family Practice*, vol. 14, no. 5, pp. 330–334.

Surgery and Substance Use

PATIENTS with substance use problems are common on surgical wards. People may suffer trauma while intoxicated, or vascular injury and infection from injecting drugs. In other cases, the substance use is unrelated to the indication for surgery and is easily missed.

Assessment for any form of surgery should involve brief assessment for any substance use issues including drug dependence. If problems are identified, intervention should commence at the earliest possible opportunity ideally by the treating team or via referral to drug and alcohol services. Delaying the treatment until development of avoidable post-operative withdrawal increases the costs of hospitalisation and leads to poorer outcomes.

Drug dependence is a chronic condition and consultation with a drug and alcohol specialist is advised coupled to continuing care after discharge from hospital.

Problems related to surgery in people with substance use problems include:

- pre-operative recognition and intervention
- anaesthetic problems
- post-operative withdrawal
- peri-operative morbidity and mortality
- management of drug seeking and drug use on the ward
- management of post-operative pain

Psychoactive substance use to consider in a patient about to undergo surgery includes:

- tobacco
- alcohol
- opioids
- benzodiazepines
- stimulants

Clinical concerns relate to both intoxication and dependence, and especially withdrawal in the case of the latter.

TOBACCO

The association between smoking and airways disease and post-operative chest infections is widely recognised.

Patients often accept the need to quit smoking pre-operatively and may be more receptive to consideration of the long-term benefits of quitting. Preparation for surgery should include advice to quit smoking and the offer of appropriate intervention or referral.

Post-operative nicotine withdrawal should be considered if:

- the patient smoked until the time of surgery; and
- complains of withdrawal symptoms such as craving for cigarettes and irritability

Post-operative symptoms may be multifactorial and other factors should be considered. Nicotine replacement therapy (NRT) should be offered where indicated and provided where no contra-indications (such as active ischaemic heart disease) are present. This often does not occur despite the high prevalence of nicotine dependence. Motivational interviewing to quit smoking long-term and referral for further treatment should be offered.

Attempts by in-patients to obtain cigarettes can be interpreted as drug seeking behaviour. Many hospitals do not permit smoking inside or even on hospital grounds. Staff should not help patients to obtain cigarettes or access smoking areas.

An exception should be made for patients in a palliative care setting or those with severe psychiatric comorbidity.

ALCOHOL

Alcohol and Post-operative Morbidity

Alcohol consumption exceeding 60 g per day adversely affects post-operative outcomes in several respects:

- increased total morbidity
- increased post-operative mortality
- significantly more care required
- longer duration of hospitalisation
- increased need for repeat surgery
- higher hospital costs

A broad range of morbidities may occur, including:

- alcohol withdrawal syndromes
- infections
- bleeding; and
- cardiopulmonary insufficiency

Follow-up after surgery has confirmed poorer outcomes.

The presence of alcoholic liver disease is associated with major increases in post-operative complications and assessment by a gastroenterologist or hepatologist is advised.

Adverse outcomes have been demonstrated in a variety of clinical settings including:

- colorectal surgery
- hysterectomy
- evacuation of subdural haematoma
- osteosynthesis of malleolar fractures

Peri-operative Management of Alcohol-related Complications

The pre-operative setting provides an opportunity time for intervention; however, clinical staff tend to focus on the surgical problem and alcohol problems are often overlooked.

It is crucial to obtain an accurate drug and alcohol history prior to surgery. Key questions must consider:

- drugs used (licit & illicit)
- patterns of use
- recency of use
- likelihood of tolerance and possibility of cross-tolerance with other drugs e.g. alcohol and benzodiazepines
- likelihood and severity of withdrawal

Pre-operative assessment should include:

- alcohol and drug history
- psychosocial history and available supports
- physical examination; e.g. monitor:
 - BP (blood pressure)
 - HR (heart rate)
- examine for signs of:
 - cardiomyopathy (rare)
 - respiratory disease
- laboratory tests:
 - liver disease (abnormal LFTs, signs of decompensation such as jaundice, ascites or encephalopathy)

- haematology (platelet count and coagulation studies)
- metabolic (BSL, electrolytes, magnesium)

If abnormalities are found, pre-operative specialist referral may be required.

An appropriate intervention should be initiated when disorders of alcohol use are recognised. Two weeks of abstinence from alcohol improves depressed cellular immunity, but two months of sobriety is necessary to normalise it. A randomised controlled trial has shown that intervention to reduce alcohol consumption prior to elective surgery reduces post-operative morbidity (Tonnesen et al., 1999). The nature of pre-operative treatment does not differ from alcohol interventions offered in other contexts and described elsewhere. Thiamine is given.



See Chapter 3
Alcohol

Surgery should be avoided in alcohol dependent patients until the course of withdrawal is complete. Surgery during withdrawal may increase withdrawal severity, likelihood of complications and risk of developing delirium tremens. Delirium tremens is a medical emergency associated with untreated alcohol withdrawal, occurring 3–14 days after stopping drinking. If surgery is unavoidable, withdrawal symptoms should be anticipated and managed as part of the post-operative management plan.

Post-operative confusion is often multifactorial with chest infection, hypoxia and delirium tremens often coexisting. In such settings, over-sedation must be carefully avoided.

OPIOIDS

Opioid dependence should be stabilised pre-operatively using methadone, commencing at 20–40 mg daily and increasing as required every 3 days.

More rapid increases may be used in hospital provided drowsy patients are not dosed. In this setting, twice daily dosing is effective. Many patients who will not accept methadone maintenance often accept in-hospital treatment. This increases retention in hospital and allows surgical treatment to be completed.

Maintenance after discharge can be encouraged and if taken up, the patient is switched to single daily dosing by simply combining the two doses 1-2 days before discharge.

Detoxification pre-operatively has been recommended, but patients usually require post-operative opioid analgesia so this approach is unlikely to succeed.

Post-operative analgesia is an issue. Patients may be conceptualised as suffering two disorders and should be prescribed appropriate treatment for both. It is important to explain to the patient that adequate analgesia will be provided and that opioid analgesia will be withdrawn when no longer indicated.

Decide an appropriate duration of parenteral treatment early in the management plan and advise the patient when parenteral medication will be switched to oral.

Non-opioid analgesia should be used as appropriate.

A higher dose of opioids will be required due to the presence of opioid tolerance.

Pethidine:

- is rarely an appropriate drug in this setting
- has a short half-life
- has marked euphoric effects and hence high abuse potential
- has the toxic metabolite norpethidine which commonly precipitates seizures after high doses

Continue or commence methadone and add longer acting opioids such as morphine for analgesia. Prescribe fixed doses of analgesia rather than p.r.n. dosing to minimise conflicts between staff and patients about when the next dose is due. Otherwise, requests for analgesia may be interpreted as drug seeking, or may evolve into drug seeking.

A trial of patient controlled analgesia (PCA) may be considered after surgery, but the patient should be instructed that PCA will stop if abused. In such cases, switch to a regimen of regular fixed dose morphine in adequate doses.

Extend the parenteral treatment if the clinical circumstances change but avoid this otherwise.

Consult the hospital drug and alcohol service. Set an appropriate discharge goal.

Opioid dependent people with a continuing need for analgesia are likely to return to heroin use after discharge from hospital. Methadone maintenance is strongly indicated in such cases, in addition to other analgesia.

Patients with previous opioid dependence are at risk of relapsing. Set treatment goals of providing analgesia that will not lead to ongoing dependence and explain these to the patient. Where possible, discontinue opioids before discharge from hospital or write the time for discontinuation on the discharge letter and communicate this to the GP.

Drug seeking behaviour should be recognised and managed as per the guidelines in this Handbook.

Drug use on the wards causes ethical and practical problems.

Three common reasons for ongoing drug use should be considered:

- unrelieved pain
- anxiety
- continuing dependence

Management Strategies

- analgesia may be increased
- anxiety causes and interventions explored
- methadone dose increased
- drug and alcohol consultation should be obtained
- motivational interviewing offered

If drug use continues, discharge from the hospital may be required.



See Chapter 2
General Principles
'Drug Seeking', p. 24

BENZODIAZEPINES

Benzodiazepine dependence may be missed if a careful drug history is not taken or the patient does not disclose recent use. This often presents with withdrawal during the post-operative period. In such cases, the patient is managed as for benzodiazepine dependence in other clinical settings.

A single long-acting benzodiazepine, usually diazepam, is substituted at the minimum dose required to suppress withdrawal symptoms. This is slowly withdrawn over ensuing weeks. It is important to collaborate with the patient's GP who may not be aware of the extent of the problem or the number of doctors being seen by the patient.



See Chapter 11
Benzodiazepines

STIMULANT USE

Cocaine and amphetamines are not often major problems in hospital (with the exception of the Emergency Department). Psychological problems and drug-induced psychosis may require psychiatric consultation. Cardiovascular changes may lead to haemodynamic instability until the effects abate.

REFERENCES

Tonnesen, H., Rosenberg, J., Nielsen, H.J., Rasmussen, V., Hauge, C., Pedersen I.K. & Kehlet, H. 1999, *British Medical Journal*, vol. 318, pp.1311–6.

Managing Chronic Pain

MANAGING chronic pain is increasingly challenging. Provision of effective analgesia is only part of the medical management of acute and chronic painful conditions. A careful explanation of the clinical problem is crucial, as is development of a trusting therapeutic relationship.

ACUTE AND CHRONIC PAIN

The medical management of pain is far more successful in acute than chronic conditions. A basic principle of therapeutics, founded on the cardinal notion of 'first do no harm', is to use the lowest possible dose of a drug for the shortest possible duration and minimise the risk of side effects.

Aim:

- keep the patient as comfortable as possible and minimise or avoid serious analgesic side effects

Clinical objective:

- reduce pain to levels that are bearable and reasonably constant
- avoid peaks of pain during a nadir in the analgesic's plasma concentration
- avoid temporary sedation or euphoria coinciding with peak plasma analgesic concentrations



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While opioids have an important role in treatment of chronic, non-malignant pain, many patients with chronic pain do *not* require opioids. Although opioids are commonly used in management of painful, chronic, non-malignant conditions, evidence of significant benefit is equivocal.

Chronic pain patients without pre-existing risk factors are at low risk of opioid dependence. But opioids should be used with caution, if at all, for patients with a current or past history of substance abuse.

A more even concentration of analgesics over time is achieved if longer acting agents are administered by mouth, suppository, infusions or skin patch rather than by injection. Injections of short acting opioids provide excellent pain relief in acute conditions. But management of chronic pain with injections of these agents often achieves a poor long-term clinical outcome, as plasma concentrations fluctuate widely.

Pethidine injections should be avoided for chronic pain management because other analgesics provide more effective pain relief with fewer side effects. Long-term prescription of pethidine injections is more likely to be complicated by severe problems of drug seeking behaviour and dependence than with morphine or other opioids. Also, active pethidine metabolites can accumulate causing complications, especially in the presence of high doses or renal impairment.

Paracetamol or aspirin provide excellent relief in cases involving mild pain.

It is generally agreed that orally, well-absorbed, long acting opioids, sustained release forms of oral morphine or oral oxycodone and metha-

done, are first line agents for the management of moderate to severe chronic non-malignant pain. These options:

- provide relatively even relief over time with low peaks and shallow troughs
- avoid the need for injections
- allow the size and frequency of doses to be readily modified according to need
- provide great flexibility

Adjuvant drugs, such as some antidepressants or anticonvulsants, have no significant analgesic effects of their own but augment the analgesia provided by opioids.

ASSESSMENT AND PAIN MANAGEMENT IN DRUG USERS

There is no formally recognised treatment protocol to guide standards of practice in pain management specifically for drug-dependent patients, but there are excellent general guidelines and protocols for pain management (e.g. the NHMRC guidelines).



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A comprehensive initial assessment is pivotal.

Assessment of the chronic pain patient entails:

- previous records
- full history
- physical examination
- investigations to document organic pathology
- current, past or family history of alcohol and/or other substance abuse
- psychiatric history to identify mood and anxiety disorders

- social history including supports at home and stressors
- current coping strategies
- regular use of illicit drugs
- previous long-term, heavy prescription opioid or benzodiazepine use

Screening for Substance Dependence

All patients should be screened for a current, past or family history of substance abuse or dependence.

See Chapter 3 Alcohol 'CAGE', p. 42

Opioids should be used with caution if:

- positive CAGE
- alcohol :
 - > 6 standard drinks/day (men),
 - > 4 standard drinks/day (women)

Alternative Options in Management

There are many options to explore for the management of chronic pain before opioids are considered:

- lifestyle adjustment; e.g. exercise, change in work tasks
- supportive counselling, cognitive-behavioural therapy
- physiotherapy
- other analgesics e.g. non-steroidal anti-inflammatory agents (NSAIDs), salicylates — follow the WHO analgesic ladder (see Figure 17–1)

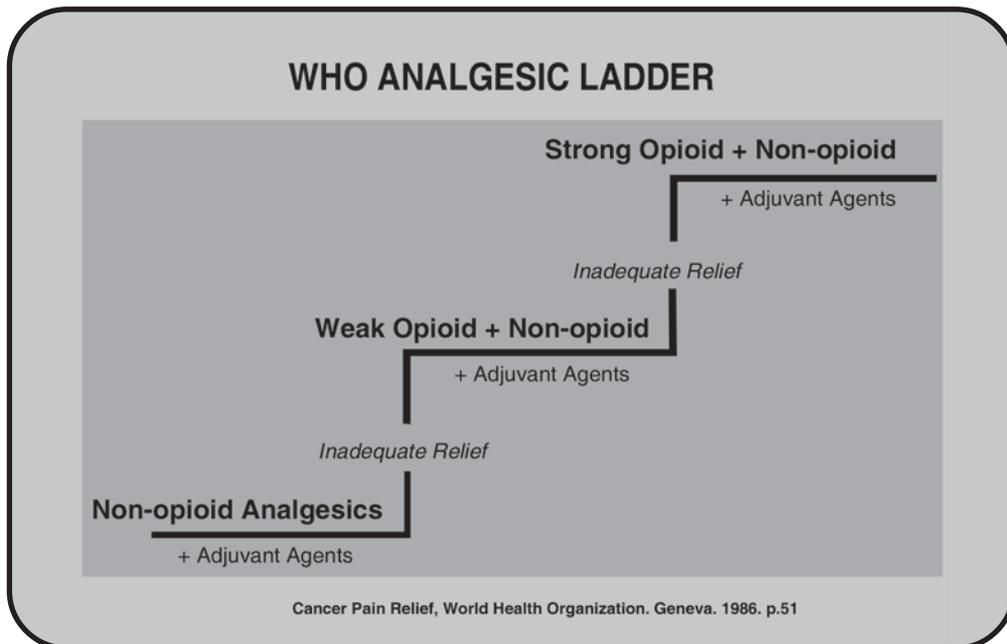


Figure 17–1
WHO Analgesic Ladder
 Source: World Health Organization

Chronic Pain

- antidepressants
- anticonvulsants
- anxiolytics, tranquillisers and hypnotics
- muscle relaxants
- antispasmodics
- antihistamines
- corticosteroids
- local anaesthetics
- Transcutaneous Electrical Nerve Stimulation (TENS)
- radiotherapy

A team based, holistic approach to chronic pain management is often helpful, involving nurses, psychologists, psychiatrists, physiotherapists and pain specialists.

Issues to be considered to improve pain management for injecting opioid users include:

- tolerance to analgesics
- potential adverse interactions with other sedative drugs
- difficulties and misunderstandings which arise in communication between clinicians and all patients
- real and perceived legal constraints for prescribers

Better outcomes require a thoughtful and considered response.

Dependence and Tolerance

Consumption of central nervous system (CNS) depressant drugs, including opioids (e.g. heroin, morphine or methadone) and other psychoactive substances (e.g. alcohol or benzodiazepines), can result in dependence (including tolerance):

- higher doses and longer duration of consumption increase severity of drug dependence

- dependence and tolerance decrease when consumption declines or ceases

Tolerance means that a drug diminishes its effect over time (or higher doses of a drug are required to maintain usual effect). Tolerance is a relative rather than an all-or-none phenomenon and can only be estimated approximately.

People who are opioid tolerant and develop a painful condition require larger doses of opioid analgesia more frequently and for longer periods in order to achieve satisfactory analgesia compared to an opioid-naive patient with an identical physical condition.

For example, patients with a long history of heroin use presenting with a fractured humerus, will require larger doses of pain relief administered more frequently and for a longer duration than a patient of the same age, sex and body weight with a similar fracture but no history of previous opioid use.

Some recent evidence suggests that chronic exposure to opioids may also reduce tolerance to pain.

Prescription of an analgesic with sedative properties in the presence of other central nervous system sedatives, including alcohol or benzodiazepines, may result in excessive sedation.

Preventing Drug Dependence in Patients with Chronic Non-malignant Pain

Preventing drug dependence from developing should always be a high priority, but balanced against the critical obligation to relieve pain and suffering. These obligations are often in competition to some extent.

Minimise the risk of drug dependence by:

- keeping patients informed. Patients who fully understand their condition and have a strong therapeutic relationship with their doctor are less likely to become dependent on analgesic medication
- maximising the benefits of non-pharmacological pain management measures. A growing list of aids is now available including relaxation tapes, discussion groups and explanatory booklets for patients with chronic pain
- referring patients to one of a small but growing number of allied health professionals interested in management of chronic non-malignant pain. They are more familiar with the range of materials available, are probably better equipped and have more time to respond to these patients.

The following pharmacological principles also help reduce the risk of drug dependence:

- use lower doses of a drug for a shorter duration
- use non-injectable long acting opioids rather than injectable short acting opioids
- avoid pethidine injections and other obsolete preparations.

Principles of Pain Management in Opioid Dependent Patients

Use of methadone in the management of chronic painful conditions is controversial. Some experts argue that excellent relief can be achieved using methadone provided that clinicians are familiar with the unusual pharmacological properties of the drug and the substantial variability in handling the drug between patients. Others argue that alternative drugs are easier to use than methadone. The long half-life of methadone means that there is an inevitable delay of up to several days between the initiation of treatment and onset of maximal effect. Orally well-absorbed opioids with a shorter half-life, such as

oxycodone, are usually more effective, especially if the painful condition is likely to only last for a short period.

Some clinicians and patients prefer to separate pain management from the management of heroin dependence. This makes good clinical sense because the time scale of these problems is usually quite different. If different agents are being used to control these problems, the dose of the medication can be modified separately according to the fluctuating severity of each one.

Explaining these issues to patients is particularly helpful as many injecting drug users feel, often with good reason, that medical staff may provide inadequate analgesia to patients with a history of drug dependence. Likewise, some medical staff may consider that some injecting drug users deceitfully attempt to obtain analgesics from doctors by complaining of spurious symptoms of a condition known to be unaccompanied by physical signs or findings from special investigations.

If different doctors are responsible for management of pain and management of drug dependence, close liaison is imperative to avoid mishap and ensure that the total opioid dose remains reasonable.

Methadone maintenance

It is generally accepted that methadone should not be used as the primary form of analgesia for acute or chronic pain in patients enrolled in methadone maintenance treatment. Increasing the dose of methadone does provide additional analgesia when tolerance to methadone has developed but this often takes several days to achieve and further complicates an already complicated treatment system.

Improved pain relief can often be achieved through the addition of another opioid analgesic, such as oxycodone, or a sustained release oral morphine preparation. A further

alternative is prescribing a long acting NSAID such as diclofenac. Ketorolac is a NSAID which can be administered by injection in cases of severe acute pain. Adjuvant drugs in combination with opioids augment the effect of the primary analgesic.

Buprenorphine

Patients receiving moderate or high doses of methadone or any other opioid should not be prescribed buprenorphine. In the presence of moderate to high doses of opioids, e.g. > 40 mg of methadone, the antagonist (i.e. naltrexone like) properties of buprenorphine can trigger unpleasant opioid withdrawal symptoms. Buprenorphine is a very potent analgesic effective in managing severe pain in patients tolerant to opioids — provided that large doses of any opioid have not been consumed recently. The decision will require:

- consideration of the dose of the other opioid
- the half-life of the opioid
- the duration since the last dose was taken

N.B. Information regarding the most recent use of heroin is often unreliable, especially if the drug dependent patient fears repercussions from disclosure.

Terminal illness

If drug dependent patients develop a severely painful condition as part of a terminal illness, then efforts to alleviate pain and discomfort become paramount. Fear of exacerbating drug dependence becomes a secondary concern. When life expectancy becomes very short, alleviation of pain becomes the only consideration.

THE POTENTIAL FOR ADVERSE INTERACTIONS

The liver has a central role in the metabolism and elimination of many drugs, including most opioid analgesics. An impaired liver is less able to metabolise drugs, potentially increasing or decreasing the observed effect.

Avoid long-term use of large doses of paracetamol i.e. > 4 grams/day in patients with liver disease as further liver damage can ensue. Drugs containing small quantities of paracetamol can be used quite safely for pain relief in people with liver disease.

The use of alcohol to relieve pain should be avoided as other agents are more effective and safer. People with hepatitis C should be encouraged to reduce alcohol consumption to low levels or abstain as alcohol increases progression of liver disease.

The likelihood of adverse effects of analgesics in patients with liver disease depends on the severity of the hepatic impairment and the particular drugs prescribed. Severe liver impairment increases the effects of many opioids. The dose of opioid analgesics prescribed for these patients should be reduced and the frequency increased while sedative effects of the drug should be carefully monitored.

Some benzodiazepines, such as diazepam and temazepam, may also produce greater than expected effects in some patients with impaired hepatic function due to active metabolites.

Health professionals should always err on the side of caution. In practice, the large reserve capacity of the liver enables most patients with even quite severe hepatic impairment to manage with usual doses of opioids or benzodiazepines until almost terminal impairment has developed.

Methadone does not cause liver damage in injecting drug users, notwithstanding urban mythology to the contrary.

THE PATIENT–CLINICIAN RELATIONSHIP

Fear of poor treatment and discrimination undoubtedly prevents some drug dependent individuals from seeking assistance from health care providers.

People who use illicit drugs are as entitled as any other patient with severe pain to proper professional management including effective pain relief. Professional concerns about the risk of exacerbating dependence cannot be ignored. Providing comfort and relieving suffering should always be the paramount objective.

Doctors who are uncertain about the proper course of action in a particular case should seek advice from more experienced colleagues.

Placebo drugs should never be provided in the pretence that effective analgesia has been offered.

NSAIDs or buprenorphine may be useful in some cases where the doctor remains uncertain about the organic or drug-seeking nature of the pain.

A common concern amongst doctors is that state regulatory authorities will criticise their prescribing habits for drug dependent patients. In some jurisdictions, legislation covering the prescription of 'drugs of addiction for persons known to be addicts' ensures that doctors and health authorities have to carefully follow statutory requirements.

When treating drug dependent patients, clinicians should discuss pain relief openly and frequently and resolve any conflict or unresolved issues as soon as possible. Discussing these matters in an open manner will:

- increase the chance of developing a productive patient–clinician relationship
- increase patient compliance
- increase the likelihood of a good treatment outcome for treatment providers and consumers alike; and
- decrease the likelihood of the patient feeling the need to 'self-medicate' with additional illicit and licit drugs to achieve adequate pain relief

RESOURCES

Bell, J. 1997, 'Australian trends in opioid prescribing for chronic non-cancer pain 1986–1996', *Medical Journal of Australia*, vol. 167, pp. 26–29.

Bamingbade, T.A. & Langford, R.M. 1998, 'The clinical use of tramadol hydrochloride', *Pain Reviews*, vol. 5, pp. 155–182.

Centre for Mental Health 2001, *Mental Health for Emergency Departments – A Reference Guide*, (Pocket Version), NSW Health Department, August.

Graziotti, P.J. & Goucke, C.R. 1997 'The use of oral opioids in patients with chronic non-cancer pain: management strategies', *Medical Journal of Australia*, vol. 167, pp. 30–34.

DASC (Drug and Alcohol Services Council) 1996, *Guidelines for the Management of Patients Complaining of Severe, Recurrent or Chronic Pain*, DASC, Adelaide.



www.ebandolier.com

Haddox, J.D., Joranson, D., Angarola, R.T., Brady, A., Carr, D.B., Bronsky, E.R., Burchiel, K., Gitlin, M., Midcap, M., Payne, R., Simon, D., Vaswleuan, S., Wilson, P. & Portney, R.K. 1997, 'The use of opioids for the treatment of chronic pain. A consensus statement from the American Academy of Pain Medicine and the American Pain Society'. *Clinical Journal of Pain*, vol. 13, no. 1, pp. 6–8.

Hagen, N., Flynn, P., Hays, H. & MacDonald, N. 1995, 'Guidelines for managing chronic non-malignant pain: opioids and other agents', *Canadian Family Physician*, vol. 41, pp. 49–53.

Harris, N., Hugh, G. & Greenway, S. (unpublished), 'Emergency Department Mental Health Manual (Draft)', NSW Health Department. November 2000 .

Jadad, A.R., Carroll, D., Glynn, C.J., Moore, R.A. & McQuay, H.J. 1992, 'Morphine responsiveness of chronic pain: double-blind randomised crossover study with patient-controlled analgesia', *Lancet*, vol. 339, pp. 1367–1371.

Moulin, D.E., Lezzi, A., Amireh, R., Sharpe, W.K.J., Boyd, D. & Merskey, H. 1996, 'Randomised



[www.nhmrc.gov.au/
publications](http://www.nhmrc.gov.au/publications)

trial of oral morphine for chronic non-cancer pain', *Lancet*, vol. 347, pp. 143–147.

Portenoy, R.K. 1996, 'Opioid therapy for chronic non-malignant pain: a review of critical issues'. *Journal of Pain & Symptom Management*, vol. 11, pp. 203–217.

Coexisting Mental Illness

THERE is a high level of coexisting AOD problems and various forms of mental health problems. The characteristic features of such problems are that:

- they are common
- they are heterogeneous and variable in nature
- they are associated with poor outcomes and individuals experience higher drop out rates when standard treatment approaches are used
- treatment often involves a range of different services; but
- best outcomes are achieved through integrated and comprehensive treatment

EPIDEMIOLOGY

Prevalence rates vary greatly across different populations. Overall, the 12 month prevalence of a substance use disorder together with a mental disorder is estimated to be 10% of the general population (ABS, 1998; Jablenski et al., 2000), and lifetime prevalence 20–30% (Todd, 2002). The evidence also suggests that for most people with mental health disorders, between 30 and 50% experience a substance use disorder, with highest rates reported in people with antisocial personality disorder, and to a lesser extent bipolar disorder and schizophrenia (Todd, 2002).

Definitions applied also greatly impact on reported prevalence levels. Consumption and patterns of drug use that do not meet diagnostic criteria (e.g. for dependence) may still impact on mental disorders.

No term is consistently used or favoured. The different terms also have slightly different meanings. For example, ‘*dual diagnosis*’ implies the existence of an alcohol or other drug problem and *one* other problem. But all terms mean the co-existence of an AOD problem and at least one mental health problem.

TERMINOLOGY

Various terms are used, often interchangeably, including:

- dual diagnosis
- coexisting disorders
- coexisting mental illness
- comorbidity

SOME SPECIFIC ASSOCIATIONS

Coexisting disorders encompass a wide range of combinations of problems. Because of the heterogeneous nature of coexisting disorders appropriate treatment requires details of the specific combination of problems. Some common combinations are shown in Table 18–1 and detailed below.

Table 18–1
Mental health problems commonly associated with psychoactive drug use

Psychoactive Drugs	Amnesic Disorder	Anxiety Disorder	Delirium	Mood Disorders	Psychotic Disorders	Sexual Dysfunction	Sleep Disorders
CNS Depressants							
Opioids			☐	☐		☐	☐
Sedative/Hypnotics	☐	☐	☐	☐		☐	☐
Solvents and Inhalants	☐	☐	☐	☐			☐
CNS Stimulants							
Amphetamines		☐	☐	☐	☐	☐	☐
Caffeine		☐					☐
Cocaine		☐	☐	☐	☐	☐	☐
Nicotine		☐					☐
Psychedelics	☐	☐	☐	☐			

Source: adapted from “Table of disorders commonly associated with psychoactive drug use”, Pagliaro, A. & Pagliaro, L. (2000)

From a Drugs Perspective

Alcohol and mood disorders

Commonly associated with a depressive disorder. Depression is generally resolved following several weeks abstinence. Bipolar disorder is also common and alcohol may also confound treatment, increasing the rate of the cycle and likelihood of relapse during a manic phase.

Alcohol and psychosis

Problematic alcohol use has been associated with increased risk of hallucinations and delusions in those with psychotic disorders. Amongst those with schizophrenia alcohol use contributes to non-adherence to medication use, increased symptoms, more medical problems and higher rates of disruptive behaviour when unwell.

Cannabis and psychosis

A common experience with cannabis use is mild psychotic symptoms e.g. paranoia. Cannabis may infrequently induce a psychotic episode that can last several days after the intoxication subsides. Cannabis may also precipitate onset of schizophrenic psychosis in those with a predisposition to the disorder.

Opioids and mental health disorders

A very high rate of mental health conditions accompanies opioid dependence. These include depression, social phobia and other anxiety disorders.

Stimulants and mental health disorders

Intoxication from stimulants (e.g. amphetamines) can result in a number of psychiatric symptoms. An amphetamine-induced psychosis can exist beyond the period of intoxication, usually for several days but sometimes up to several weeks. Occasionally, a chronic schizophrenia-like condition may occur after chronic heavy amphetamine use (it is unclear whether this occurs only in those with a pre-

existing disposition). Heavy prolonged use sensitises the user to unwanted psychotic symptoms when the drug is used again.

From a Mental Health Perspective

Anxiety disorders and drug use

People with anxiety disorders also experience high rates of alcohol and drug problems. However, anxiety disorders also can occur as part of an alcohol or drug syndrome. Panic disorder and social phobia are common in alcohol dependent people. Ceasing drug use before treating anxiety disorders is optimal.

Also consider misuse of benzodiazepines in a patient with an anxiety disorder when:

- symptoms persist despite taking them
- the patient is reluctant to consider other treatment approaches
- there is extensive use of benzodiazepines to overcome nearly all potentially anxiety-provoking situations

Personality disorders and substance use disorders

Antisocial personality is a common association. Other personality disorders prone to substance misuse include the histrionic, borderline, narcissistic, avoidant and obsessive-compulsive.

Psychotic illnesses and substance use problems

- people with psychotic illnesses have increased rates of violence, homelessness, worse psychosis, poor compliance and slower recovery from substance use disorders
- users of alcohol and cannabis with psychotic illnesses are five times and three times respectively more likely to be dependent than study controls (Degenhardt & Hall, 2001)

- cannabis may produce acute psychotic symptoms if used in large doses but is unlikely to cause a chronic psychosis. It can precipitate psychotic illnesses in vulnerable individuals and will exacerbate symptoms in those with pre-existing illnesses
- stimulants and hallucinogens are preferred by patients with psychotic illnesses but they exacerbate psychosis

Suicide and substance misuse

- post-mortem studies find alcohol or other drugs at measurable levels in 30–50% of suicides
- substance misuse predisposes to suicide by:
 - disinhibiting or providing ‘courage’ to overcome resistance in carrying through the act
 - clouding of one’s ability to see alternatives
 - worsening mood or psychosis

MANAGEMENT

There is growing consensus regarding the nature of treatment for coexisting disorders.

What Works?

- integrated approaches within services and by therapists with skills and knowledge in both areas are the most effective and acceptable
- non-confrontational approaches to substance use
 - assertive care and involuntary management if needed

Principles of Care

1. Safety — above all else ensure the safety of the patient and others
2. Stabilisation — address acute intoxication or withdrawal, psychotic symptoms, psychosocial crisis, severe anxiety or depressive symptoms etc.
3. Comprehensive assessment — is essential and is an ongoing process
4. Clinical case management — often initiated by mental health team but requires coordination and continuity of care
5. Treatment integration — involves treatment for both the drug use and mental health condition

Assessment and Management

1. Screen for both disorders

2. Assess

- undertake a thorough assessment
- manage withdrawal and reassess if needed
- multiple reviews over time may be needed
- ask:
 - which came first?
 - were the psychiatric symptoms there during periods of prolonged abstinence?
 - observe mental state after intoxication effects have dissipated and the patient has withdrawn from the substance and substance induced symptoms have had time to resolve (see below).

3. Engage for long-term treatment

- vital but difficult. Relapse for AOD and some mental health problems is common.

4. Treat

- establish motivation to change, goals and realistic outcomes e.g. patients with poorly controlled schizophrenia are unlikely to change unless their lives are going to be better when drug-free

- motivational enhancement (modified approach for psychiatrically ill and refer to a specialist agency where appropriate)
- apply harm minimisation strategies (frequently overlooked for patients with coexisting mental illnesses)
- adopt a long-term perspective.

5. *Attend to both disorders*

- often drug use decreases when psychosis is well controlled, and depression often goes once the patient is abstinent from alcohol
- prescribe medication to substance using patients, but cautiously; depending on the substance used and the medication prescribed, for example, tricyclic antidepressants and alcohol are best avoided. The problems of interaction between alcohol and modern antidepressants are small relative to the possible benefits. Consider providing limited quantities at a time e.g. daily collection with methadone, or twice weekly pick up from a pharmacist/clinic
- generally psychiatric treatments are less effective (but not totally ineffective) when substance misuse continues e.g. antidepressants are less effective for depression and anxiety when taken with alcohol, graded exposure for agoraphobia is ineffective if taking more than 5–10 mg of diazepam per day.

Harm Minimisation

Apply a harm minimisation approach, for example, ensure prescription of thiamine for alcohol dependence, or access to clean injecting equipment if injecting drug use continues. A harm minimisation approach may involve abstinence from alcohol or other drugs, but it also acknowledges incremental change can be an improvement or valid end point.

RESOURCES



[www.som.flinders.edu.au/
FUSA/PARC/Publications](http://www.som.flinders.edu.au/FUSA/PARC/Publications)

Holmwood C. 2003, 'Comorbidity with mental disorders and substance use: A brief guide for the primary care clinician'. *Commonwealth Department of Health and Ageing*. Accessed from: www.health.gov.au/pubhlth/publicat/document/comorbid_brief.pdf

McCabe D. & Holmwood C. 2003, 'Comorbidity in general practice: The provision of care for people working with coexisting mental health problems and substance use by general practitioners'. *Commonwealth Department of Health and Ageing*. Accessed from: www.health.gov.au/pubhlth/publicat/document/comorbid_gp.pdf



www.mentalhealth.org

REFERENCES

- ABS (Australian Bureau of Statistics) 1998, *National Survey of Mental Health and Wellbeing of Adults: User's Guide*, ABS, Canberra.
- Degenhardt L. & Hall W. 2001, 'The association between psychosis and problematical drug use among Australian adults: findings from the National Survey of Mental Health and Well-Being'. *Psychological Medicine*, vol. 31, pp. 659–668.
- Jablenski, A., McGrath, J., Herrman, H., Castle, D., Gureje, O., Evans, M., Carr, V., Morgan, V., Korten, A. & Harvey, C. 2000, 'Psychotic disorders in urban areas: an overview of the Study on Low Prevalence Disorders', *Australian & New Zealand Journal of Psychiatry*, vol. 34, pp. 221–236.
- Pagliari, A. & Pagliaro, L. 2000, *Substance Use Among Women*, Brunner/Mazel, Philadelphia, p. 183.
- Todd, F. 2002, 'Chapter 20: Coexisting alcohol and drug use and mental health disorders' in (ed.) Hulse G., White, J. & Cape G. 2002, *Management of Alcohol and Drug Problems*, Oxford University Press, South Melbourne, Victoria, pp. 359–373.

Injecting and Communicable Diseases

THE REALITY of the human immunodeficiency virus (HIV) and hepatitis C (HCV) epidemics has served to clarify thinking about the risks of acquiring communicable diseases through injecting drug use. Hepatitis B (HBV), which poses a significant risk to the injecting user population, did not have such an impact and only now is its importance in this population being recognised.

With reliable estimates predicting an increasing use of illicit drugs, there is an urgent need to provide clear and unequivocal messages about the risks of infection associated with these practices.

Recent studies have demonstrated that *all* of the paraphernalia linked to injecting use have the potential to transmit blood borne infectious agents. Even if sharing of equipment does not occur, poor cleaning of personal equipment and contaminated drug supplies can still expose the individual user to infections from bacteria and fungi.

INFECTIVE PROBLEMS ASSOCIATED WITH INJECTING DRUG USE

- endocarditis. While infection of the tricuspid valve is more common, left sided subacute bacterial endocarditis (SBE) regularly occurs in injecting drug users (IDU). Staphylococcal and fungal infections (left sided) are well recognised
- ophthalmitis
- systemic candida infections
- bacteraemia
- tuberculosis
- tetanus

BLOOD BORNE COMMUNICABLE DISEASES

Numerically these infections are more significant. They include:

- hepatitis C
- hepatitis B
- hepatitis D
- HIV
- HTLV-I/II
- malaria

There is a real possibility that other, as yet unidentified, viruses exist.

Hepatitis G (HGV) antibodies are found in approximately 10% of injecting users but the significance of this virus remains unclear. Transfusion-transmitted virus (TTV) antibodies are also common but neither HGV nor TTV co-infection alter the course of HCV or HBV infection.

HEPATITIS C

This is the most commonly transmitted pathogenic virus in Australian IDU populations. The annual risk of hepatitis C (HCV) seroconversion in regular users is 15% and for those who have used for more than 10 years rates of HCV positivity reach > 90%.

Some facts about HCV:

- approximately 15,000 new cases of HCV occur in Australia per annum
- most of these will occur in IDU settings
- transmission occurs through blood contamination of equipment
- sexual transmission occurs uncommonly
- vertical transmission occurs in 5–8% of HCV RNA positive mothers (recent data suggests caesarian section may reduce the risk)
- no evidence of transmission from breast feeding

Testing for HCV

- HCV antibody (HCV Ab) remains the first line test but it does not distinguish between acute, chronic or resolved infection.
- HCV Ab is passively transferred to neonates who will remain Ab positive for up to 12 months
- HCV Ab becomes positive 15–30 weeks post-exposure
- HCV RNA detectable within 2–3 weeks of exposure to the virus
- HCV RNA now funded by Medicare in suspected acute HCV infection and in patients with persistently normal liver tests (to confirm viral clearance). Testing also approved in pregnant patients
- HCV genotype and viral load now funded by Medicare in relation to commencing treatment. These tests may be ordered by a GP who is linked to a treatment centre

Natural History

- up to 30% of infected individuals clear the virus within 12 months
- 10–15% of chronically infected individuals progress to cirrhosis over 20–30 years. Risk of cirrhosis is increased by:
 - older age at infection
 - male
 - alcohol > 40 g / day
 - possibly increasing age
- risk of liver (hepatocellular) carcinoma (HCC) is approximately 4% per annum in cirrhotic patients
- most patients with HCV will not die of HCV related complications

Assessing Patients for Treatment

S100 guidelines for antiviral therapy specify a subset of patients that may access treatment. The following tests are required before treatment may be initiated and they can be ordered by GPs evaluating patients. A Referral Checklist is at Appendix K of this Handbook.



See Appendix K

Antiviral Therapy

- interferon monotherapy is no longer regarded as appropriate unless patient is unable to tolerate ribavirin
- if interferon monotherapy is to be used it should be with pegylated forms of the molecule as they provide significantly improved sustained response (SR) rates (approx 40%)
- interferon-ribavirin therapy gives an overall SR in 40–50% of patients with non 1 genotypes achieving up to 80% SR

- combination therapy is contraindicated in the presence of overt or suspected coronary artery disease. Interferon may exacerbate autoimmune disease. Thyroiditis, which can progress to thyroid failure, occurs in approximately 20% of interferon treated patients

Managing Patients who have Failed Therapy or are Ineligible for Treatment

- monitor liver function 6 monthly
- repeated HCV RNA tests are only indicated if liver tests change significantly
- in cirrhotic patients monitor a fetoprotein 6 monthly and perform abdominal ultrasounds 6 monthly to detect HCC development
- consider HBV and HAV vaccination although cost-effectiveness studies do not favour universal recommendation

Liver Transplantation in HCV

- HCV end stage liver disease is the most common indication for liver transplantation in most Western countries
- reinfection of the graft occurs in all patients and cirrhosis evolves in approximately 10 years

Prevention of HCV

- do not share any injecting equipment or paraphernalia
- reduce injecting drug use, encourage routes of non-injecting administration and encourage users to quit use through treatment programs
- fast track pregnant patients with HCV onto a methadone program
- in household settings: do not share razors, toothbrushes or other items that may be contaminated by blood
- wear gloves when cleaning blood spills
- avoid at-risk sexual exposure

Alcohol and HCV

- high daily intake will markedly worsen liver tests
- > 40 g / day will increase rate of progression to cirrhosis
- do not consider treatment in those drinking > 40 g / day as response is reduced and ALT may normalise in some if alcohol is ceased

HEPATITIS B

Exposure to this virus is common in certain countries and in certain groups within the Australian community. Unlike HCV infection, only 5% become chronically infected. Children infected at birth have a much higher chronicity rate (approximately 80%). Evidence of exposure to HBV is found serologically in 40–50% of IDUs in Australia.

- HBV now exists in our community in a wild and a mutant form. Co- or re-infection can thus occur
- HBV may be transmitted from blood exposure but also sexually and by exposure to other infected bodily secretions
- prevention of HBV will be achieved by applying guidelines included in the HCV section
- an effective HBV vaccine exists and it should be recommended to all at risk of this infection
- currently in Australia HBV vaccine is made available free to:
 - all newborn babies
 - adolescents who missed vaccination at birth
 - health care workers through their place of employment
 - attendees at sexual health clinics

Testing for HBV

- interpreting HBV tests should always be undertaken carefully
- serological tests include HbsAg, HbsAb, HbcAb, HbeAg and HbeAb
- with mutant strains now more common it is possible to have mutants that produce no HBeAg and even no HBsAg
- HBV DNA measurement is becoming more useful and even necessary

Natural History

- hepatitis B will produce a fulminant hepatitis in < 1% and a clinical illness in < 50% of infected individuals
- immunity to HBV is life-long but wild strain immunity may not protect against mutant strain infection
- neonatal infection usually results in the 'asymptomatic' carrier state with HbsAg positivity and normal liver tests. Some individuals develop 'flares' of abnormal ALT and may progress to cirrhosis
- the asymptomatic carrier may still progress to hepatocellular carcinoma without cirrhosis

Treatment of HBV

- the release of lamivudine on S100 has modified treatment significantly
- available for 12 months therapy to those whose biopsy shows chronic active hepatitis
- therapy does induce the development of resistant (YMDD) mutants
- if transplantation is being considered then lamivudine monotherapy should not be commenced without discussion with a transplant unit
- interferon monotherapy can be used and 20–30% may be expected to lose HBeAg and become HBeAb positive. Only 5–7% will clear HBsAg

HEPATITIS D

Fortunately this infection is becoming less frequent in the Australian community. HDV is an incomplete viral particle that requires the HBsAg coat to allow it to infect hepatocytes.

- HDV can only infect HBsAg positive individuals
- infection may be a co- or super- infection
- in either instance the disease in the dually infected individual is more severe than if only HBV has been contracted
- prevention and treatment of HDV infection is that of HBV
- vaccination against HBV will prevent HDV susceptibility in the HBV immune individual

HUMAN IMMUNODEFICIENCY VIRUS

Fortunately in Australia the human immunodeficiency virus (HIV) positivity rate in IDUs remains low, unlike the situation in many other countries (including the USA, Scotland and Canada). The potential for increased rates of infection continues as does the need for support of Needle Syringe Programs (NSPs) at all levels of our community. The Australian experience suggests that NSPs have been of great value in reducing the spread of HIV in the IDU community.

In Australia the HIV seroprevalence rate in IDUs is 1–2% compared to a rate of 5–10% in homosexual/bisexual men.

Consider HIV exposure and acute infection in IDUs complaining of:

- Epstein-Barr virus (EBV) seronegative 'glandular fever' type symptoms
- flu-like symptoms out of season
- fever > 3 days

- maculo-papular rash
- recent evidence of sexually transmitted infections
- recent high-risk exposure

Testing for HIV

- HIV serological tests may be positive 3 weeks after the start of a primary HIV illness
- HIV DNA may be detectable within a few days of symptoms and negative at 1 month
- seek advice from an HIV expert in determining a testing sequence depending on the clinical setting
- it is appropriate to screen all past IDUs for HIV exposure, providing pre- and post-test counselling is provided

Treatment of HIV

- as HIV infection is uncommon in the IDU population in Australia it is recommended that if a positive test is obtained, advice be sought from a specialist clinician
- treatment is available for prophylaxis following a positive exposure, for acute infection, for chronic HIV infection and for those who present with an AIDS defining illness
- the course of HIV and AIDS has been radically improved with the advent of multiple anti-HIV agents

Prevention

- advise of the risks of sexual and IDU-related transmission
- advise methadone maintenance as a means of reducing IDU

Effect of HIV on IDU Problems

- an active IDU should not be denied resources for the investigation and treatment of HIV, HBV or HCV infections and their complications

- the risk of IDU linked bacterial infections will be increased in HIV positive IDUs. Consciously consider pneumonias, tuberculosis (TB), subacute bacterial endocarditis (increased mortality), and the well recognised pneumocystis, cryptococcal, candida and cryptosporidial infections
- HIV co-infection with either HBV or HCV worsens the prognosis of the liver disease
- always ensure adequate support if diagnosis of HIV is made. Suicidal depression may follow diagnosis

HTLV/III

Infection with these retroviruses is less frequent in IDUs than is infection with HCV, HBV or HDV.

- transmission occurs parenterally and sexually
- incidence of clinical disease is low with these infections
- no specific therapies are recommended

RESOURCES

Hepatitis C Council of New South Wales



[www.hepatitisc.org.au/
other_resources/
other_resources.htm](http://www.hepatitisc.org.au/other_resources/other_resources.htm)

Drug Issues in Correctional Services

EACH Australian state and territory has its own prison system. There are no federal prisons and no national policy (nor mandate) for prisons in Australia.

According to the 1999 National Prison Census, there were 21,538 prisoners, representing an imprisonment rate of 120 per 100,000 adult population. For Indigenous Australians, however, this rate climbs to 1,690 per 100,000 (Australian Institute of Criminology, 2000).

PATTERNS OF DRUG USE AMONG PRISONERS

Approximately 800 inmates in NSW were assessed in the Inmate Health Survey in 1996 (Butler, 1997). The study found:

- 72% smoked tobacco
- 50% reported drinking alcohol at 'harmful' levels prior to entering prison
- 64% of females and 40% of males had a history of injecting drug use
- half of the injectors had injected in prison

Reported levels of a history of injecting drug use among prison populations in other states are:

- 36% in South Australia (Gaughwin et al., 1991)
- 46% in Victoria (Crofts et al., 1995)

HISTORY OF IMPRISONMENT AND PREVALENCE OF INJECTING

Table 20–1 shows the number of imprisoned Needle Syringe Program (NSP) clients and among those clients the level of injecting drug use whilst in prison.

- NSW prisons have recorded 5 cases of hepatitis C transmission (Haber et al., 1999; Post et al., 2001)
- Australian prisons have been recorded 4 cases of HIV transmission (Dolan et al., 1999)

PREVALENCE AND TRANSMISSION OF BLOOD BORNE VIRAL INFECTIONS

- HIV infection remains low among Australian prisoners at less than half a percent (NCHECR, 2001)
- hepatitis C prevalence is 33% among male and 66% among female inmates in NSW (Butler et al., 1997)

INTERVENTIONS TO REDUCE RISK BEHAVIOUR AND TRANSMISSION

Three interventions to prevent the transmission of HIV and hepatitis C are bleach, condoms and methadone programs. Table 20–2 shows which states have these programs.

Table 20–1
Needle Syringe Program male and female clients who were imprisoned and injected in prison in 1996

Location	Males and Females Imprisoned (N)	% Imprisoned	Injected % (of those in prison)
NSW	M = 335	25	35
	F = 216	14	55
QLD	M = 356	7	64
	F = 160	6	78
VIC	M = 307	18	30
	F = 147	7	40
ACT	M = 59	22	46
	F = 27	7	0
NT	M = 76	12	33
	F = 24	4	0

Bleach Programs

Two studies of the NSW bleach program found inmates had easy access to bleach and were using bleach to clean their syringes (Dolan et al., 1998, 1999). While bleach can decontaminate HIV from syringes it is unclear how effective it is against hepatitis C.

Condoms

An evaluation of the condom program in NSW prisons found:

- most inmates were in favour of the program
- the location of the vending machines was appropriate
- 28% reported obtaining condoms
- 52% of those having anal sex always used condoms (Lowe, 1996)

Methadone Maintenance Treatment

The NSW prison methadone program started in 1986. In 2001, there were about 1,000 inmates in methadone treatment. A randomised controlled trial of the program found that treated inmates had significantly lower levels of heroin use when measured by hair analysis and self-report (Dolan et al., submitted). There was a non-significant trend to reduced hepatitis C incidence among the treated group (24.3 vs. 31.7 per 100 person years).

Syringe Exchange Schemes in Prison

Twenty prisons operate syringe exchange programs in Switzerland, Germany and Spain (Rutter et al., 2001). Research into these programs found that they were accepted by staff

Table 20-2
Implementation of prevention measures in Australian prisons (2002)

Jurisdiction	Bleach	Condoms	Methadone (MMT)
NSW	Yes via dispensers	Yes	Yes
Victoria	Yes for general cleaning	Yes	No *
Queensland	Yes for general cleaning	No	Yes if on MMT at entry
Western Australia	No	Yes	No *
South Australia	No	No	Yes
Tasmania	Yes for general cleaning	No	Yes if on MMT at entry
Northern Territory	No	No	No
ACT	Yes on request	Yes	No

*Methadone is available to remandees and inmates who are pregnant.

and inmates. No inmate started injecting in prison and reports of syringe sharing decreased. No assaults occurred and no new cases of HIV or hepatitis C infection were recorded. No Australian prison operates a needle and syringe program.

REFERENCES

- Australian Institute of Criminology 2000, *Australian Crime Facts and Figures*, Canberra.
- Butler, T. 1997, *Preliminary Findings from the NSW Inmate Health Survey of the Inmate Population in the NSW Correctional System*, Corrections Health Service.
- Butler, T., Dolan, K., Ferson, M., McGuinness, L., Brown, P. & Robertson P. 1997, 'Hepatitis B and C in New South Wales prisons. Prevalence and risk factors', *Medical Journal of Australia*, vol. 166, pp. 127–130.
- Crofts, N., Stewart, T., Hearne, P., Ping X.Y., Breskin, A.M. & Locarnini, S.A. 1995, 'Spread of bloodborne viruses among Australian prison entrants'. *British Medical Journal*, vol. 310, no. 6975, pp. 285–88.
- Crofts, N., Webb-Pullman, J. & Dolan, K. 1996, 'An analysis of trends over time in social and behavioural factors related to the transmission of HIV among IDUs and prison inmates', *Evaluation of the National HIV/AIDS Strategy*, Technical Appendix 4, AGPS, Canberra.
- Dolan, K., Mattick, R.P., Shearer, J., MacDonald, M., Hall, W. & Wodak, A. (submitted), 'A randomized controlled trial of methadone maintenance treatment vs. wait list control in an Australian prison'.
- Dolan, K. & Wodak, A. 1999, 'HIV transmission in a prison system in an Australian State', *Medical Journal of Australia*, vol. 171, pp. 14–17.
- Dolan, K., Wodak, A. & Hall, W. 1998, 'A bleach program for inmates in NSW: an HIV prevention strategy', *Australian & New Zealand Journal of Public Health*, vol. 22, no. 7, pp. 838–840.
- Dolan, K., Wodak, A. & Hall, W. 1999, 'HIV risk behaviour and prevention in prison: a bleach programme for inmates in NSW'. *Drug and Alcohol Review*, vol. 18, no. 2, pp. 139–143.
- Gaughwin, M.D., Douglas, R.M. & Wodak, A.D. 1991, 'Behind bars — risk behaviours for HIV transmission in prisons, a review' in *HIV/AIDS and Prisons Conference Proceedings*, Norberry, J., Gerull S.A. and Gaughwin M.D. (eds.), Australian Institute of Criminology, Canberra.
- Haber, P., Parsons, S., Harper, S., White, P., Robinson, W. & Lloyd, 1999, 'A. Transmission of hepatitis C within Australian prisons', *Medical Journal of Australia*, vol. 171, no. 1, p. 31.
- Lowe, D. 1996, *Evaluation of the condom trial in three Correctional Centres in New South Wales: Final Report for the Department of Corrective Services*, Sydney.
- NCHECR (National Centre in HIV Epidemiology and Clinical Research) 2001, *HIV/AIDS, Hepatitis C and Sexually Transmissible Infections in Australia: Annual Surveillance Report 2001*, NCHECR, Sydney.

Post, J.J., Dolan, K.A., Whybin, L.R., Carter, I.W.J., Haber, P.S. & Lloyd A.R. 2001, 'Acute hepatitis C virus infection in an Australian prison inmate: tattooing as a possible transmission route', *Medical Journal of Australia*, vol. 174, pp. 183–184.

Rutter, S., Dolan, K., Wodak, A. & Heilpern, H. 2001, *Prison-based Syringe Exchange. A Review of International Research and Program Development*, Technical Report No. 112, National Drug and Alcohol Research Centre, Sydney.

Health Professionals As Patients

HEALTH professionals are not immune to problems with drugs or alcohol. Apart from the general risk factors they share with the rest of the community, health professionals may be exposed to particular risks relating to:

- the demands, responsibilities and stresses of their professional lives
- conflict between their professional and personal lives
- easy access to prescription drugs
- self-treatment (often following self-diagnosis and self-investigation)
- reluctance of colleagues to confront or deal with early warning signs

The stakes are considerably higher in the case of health professionals with drug or alcohol problems where the well-being, and even the lives of patients under their care may potentially be at-risk. There are real and tragic examples of patients dying as a direct result of their treating doctor's dependence, and we are all aware of health professionals whose own lives are devastated by drug or alcohol problems.

Note: All health professionals should have a GP with whom they can develop a professional relationship. Self-treatment and corridor or tea-room consultations with colleagues are not appropriate or effective health care.

TREATING A HEALTH PROFESSIONAL WITH A DRUG OR ALCOHOL PROBLEM

If you are treating another health professional you should:

- recognise that it has taken a great deal of courage (and perhaps some not-so-gentle persuasion) for a health professional to present to you for treatment
- treat them as a patient, not a colleague. This may be self-evident, but you should not assume anything about their knowledge of their problem, or expect them to take more responsibility for their management than you would expect from any other patient
- assess them in the same way that you would assess any other patient. A detailed history and appropriate physical examination are crucial and should never be circumvented
- treat them in the same way that you would treat any other patient. In these circumstances, they are your patient first and a health professional second
- provide them with the same information that you give to other patients. Assume nothing
- never allow them to prescribe or procure their own medications, no matter how convenient it may be
- be directive about their follow-up. Do not leave it up to them. Ensure provision of adequate after-care with an ongoing care manager
- consider the impact of their problem upon their work. If you believe that patient safety may be at risk, you should advise the health professional accordingly. If they are not receptive to your advice, you should seek the advice of their registering authority such as the Medical Board or Nursing Board

Registering Authorities

Registering authorities are charged with responsibility for public protection. In some jurisdictions, there is a statutory responsibility to notify a registering authority of an impaired health professional. Most have established programs for dealing with registrants who have drug and alcohol problems and pose a current or potential risk to the public. These programs are non-disciplinary, and aimed at supporting the health professional in practice while monitoring their progress and ensuring that they are adequately treated. Contact the relevant registering authority in your state to clarify the definition of 'impairment' and find out whether you have a statutory responsibility.

DEALING WITH A COLLEAGUE WITH A DRUG OR ALCOHOL PROBLEM

As a health professional, you should:

- be alert to the possibility that a colleague may have a drug or alcohol problem. The general indicators are discussed elsewhere in this handbook, and apply equally to health professionals. There are additional indicators that may alert you to a problem. These include:
 - unexplained behaviour changes
 - inappropriate prescribing
 - administering patient medication in a secretive manner
 - drug wastage, particularly in the case of illicit drugs
 - poor compliance with documentation requirements; e.g. drug register
 - patients complaining of inadequate pain relief

- collecting patient medications from the pharmacy
- unwillingness to respond to on-call responsibilities; e.g. refusing to return after-hours
- take action, or make sure that someone else does! It is a regrettable truth that for a variety of reasons colleagues do not act, and the consequences can be tragic for the individual and their patients. The reasons include:
 - not wanting to create waves
 - hoping that someone else will take action
 - unfounded fear of legal action
 - not knowing what to do
 - feeling intimidated by the person concerned

The Steps to Take

1. If you feel unable to deal with the matter yourself, make your supervisor aware of your concerns. Do not let the matter drop until you are sure that you have been taken seriously
2. If you feel able to talk to the colleague yourself, *do not take on a treating role*, but:
 - arrange to meet with them privately
 - let them know that you are concerned and why
 - ask for their version of events
 - ask them to consult with an appropriate specialist
 - provide them with contact information
3. Consider alerting their head of department or supervisor
4. Follow-up to make sure that they have taken your advice. Be aware that your colleague may tell you what they think you want to hear, having taken no positive steps

Consider the impact of their problem upon their work. If you believe that patient safety may be at risk, you should advise the health professional accordingly and alert their head of department. If they are not receptive to your advice, you should seek the advice of their registering authority. Please refer to the note *Registering Authorities* above. These are actions of professional responsibility and concerned assistance for a colleague who may be in genuine distress.

BEING A HEALTH PROFESSIONAL WITH A DRUG OR ALCOHOL PROBLEM

Health professionals may experience drug and alcohol problems just like any other member of the community.

You may feel that with your professional knowledge and skill you should be able to control and manage your problem. Experience shows that this is rarely the case.

You may feel that asking for help is an admission of personal or professional inadequacy. Unfortunately, the consequences of failing to seek help may be far more detrimental to your personal and professional life.

If you have developed a functional relationship with your GP then they are the appropriate person to help you with your problems in the first instance and you are encouraged to seek their assistance sooner rather than later.

Do not try to 'go it alone'. You will need professional support and advice. In the absence of appropriate GP support contact the Doctors' Health Advisory Service.

The Doctors' Health Advisory Services provide a 24-hour service to impaired doctors. Table 21-1 Doctors' Health Advisory Services gives contact details for each state.

In Victoria, the Victorian Doctors Health Program has been established as a full time service to assist doctors and medical students with health concerns including alcohol and other drug problems.

Contact: (03) 9495 6011

Table 21-1
Doctors' Health Advisory Services

New South Wales	(02) 9437 6552
Queensland	(07) 3833 4352
South Australia	(08) 8273 4111
Tasmania	(03) 6223 2047 (03) 6235 4165 (after hours)
Victoria	(03) 9280 8722
Western Australia	(08) 9321 3098

Gambling

IN ADDITION to problems encountered with psychoactive substances (i.e. alcohol and other drugs) there is a range of behaviours that exhibit similar patterns of problems and harms that may have the same underlying or antecedent factors. Such behaviours include eating, exercise, sexual behaviour and gambling. The latter is an area of increasing concern across Australia. Collectively, such behaviours are referred to as appetitive behaviours, that is the desires or inclinations — appetites—that are basic to life which can get out of hand (Orford, 2001).

Problematic gambling is included here because of its increasing prevalence, likelihood of presentation to health care workers and its receptiveness to similar forms of intervention as covered elsewhere in this Handbook.

PROBLEM GAMBLING

Problem gambling is gambling behaviour that results in harm:

- to the individual
- to family and friends
- that may extend into the community

The harm may include:

- financial loss — even bankruptcy
- loss of employment
- criminal activity
- breakdown of relationships
- health problems including anxiety, depression and suicidal thoughts

Over the past 20 years Australian governments have legislated to allow major increases in the availability of legal gambling facilities, firstly by casinos and more recently by the introduction of electronic gaming machines into local hotels and clubs. It is well known that as the opportunities for legal gambling increase, so do the number of people who take part.

It is generally accepted that 2% of the population experience gambling problems with a further 1–3% at risk of developing a problem. Beyond this are the many thousands of family members, friends and associates adversely affected by another's gambling, with estimates of up to 10 significant others affected by any one problem gambler. In addition there are the demands on community and public resources.

Identifying Problem Gamblers

Only a small proportion of problem gamblers have presented for help and the prevalence of problem gambling is difficult to determine.

While there is no consensus on diagnostic criteria or screening tools the 'EIGHT' Gambling Screen (see Figure 22–1) is a useful tool for patients to use and discuss with their GP. Four or more *yes* answers suggest that the patient's gambling may be affecting his/her wellbeing.

Research has examined the rates of comorbidity of problem gambling with other psychological disorders and noted:

- high rates of comorbidity with major depressive disorders
- bipolar disorder
- anxiety disorders
- drug and alcohol problems

PRESENTATION OF PROBLEM GAMBLERS

Patients may not see a connection between their gambling and their current health concerns, or may minimise the connection out of guilt. Studies have shown that gamblers will commonly present to GPs with:

- depression
- anxiety
- headaches
- sleep difficulties
- heavy alcohol use or other drug problems
- indigestion
- back and neck pains

Broaching the subject of gambling can be done in a number of ways. While gathering a history of the complaint it may be appropriate to ask generally:

'How are you spending your leisure time?'

If framed as a health issue, patients may feel more comfortable to disclose that their gam-

1. Sometimes I've felt depressed or anxious after a session of gambling.
 - Yes, that's true.
 - No, I haven't.
2. Sometimes I've felt guilt about the way I gamble.
 - Yes, that's so.
 - No, that isn't so.
3. When I think about it, gambling has sometimes caused me problems.
 - Yes, that's so.
 - No, that isn't so.
4. Sometimes I've found it better not to tell others, especially my family, about the amount of time or money I spend gambling.
 - Yes, that's true.
 - No, I haven't.
5. I often find that when I stop gambling I've run out of money.
 - Yes, that's so.
 - No, that isn't so.
6. Often I get the urge to return to gambling to win back losses from a past session.
 - Yes, that's so.
 - No, that isn't so.
7. I have received criticism about my gambling in the past.
 - Yes, that's true.
 - No, I haven't.
8. I have tried to win money to pay debts.
 - Yes, that's true.
 - No, I haven't.

Figure 22-1
EIGHT Gambling Screen

Source: *Early Intervention Gambling Health Test* (no date)

Developed by Sean Sullivan, Goodfellow Unit, Auckland Medical School (unpub.)

bling is causing them personal problems such as relationship and financial difficulties. Or that someone else's gambling problem may be the cause of the trouble.

TREATMENT/REFERRAL OPTIONS

Discuss how:

- gambling is a system over which the gambler has little or no control
- losing is the most probable outcome
- winning in many forms of gambling is totally random
- the only true winners are the gambling industry

Indicate that gambling problems can:

- cause stress
- cause depression and anxiety
- affect physical and emotional health

Ask patients to describe the positive and negative outcomes from their gambling.

Most states offer free face-to-face counselling through agencies such as BreakEven. They offer a variety of counselling services to problem gamblers and/or their families including:

- personal counselling
- financial counselling
- relationship counselling

If a patient recognises that their gambling may be causing some harm make an appointment for them to attend one of these services and/or consider prescribing antidepressants as they can help reduce the urge to gamble. Follow-up their progress at the next planned visit.

REFERENCES

Orford, J. 2001, *Excessive Appetites. A Psychological View of Addictions*, 2nd edn., John Wiley & Sons, Chichester.

