

Module 5

# Managing Non-Opioid Drug Dependence

Treatment and Care for  
HIV-Positive Injecting Drug Users



# Module 5

## Managing non-opioid drug dependence

Participant Manual

2007



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Module 1: Drug use and HIV in Asia: participant manual

Module 2: Comprehensive services for injecting drug users – participant manual

Module 3: Initial patient assessment – participant manual

Module 4: Managing opioid dependence – participant manual

Module 6: Managing ART in injecting drug users – participant manual

Module 7: Adherence counselling for injecting drug users – participant manual

Module 8: Drug interactions – participant manual

Module 9: Management of coinfections in HIV-positive injecting drug users – participant manual

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# Abbreviations and acronyms

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
ASEAN	Association of Southeast Asian Nations
ATS	amphetamine-type stimulants
BP	blood pressure
CBT	cognitive-behavioural therapy
CDC	Centers for Disease Control and Prevention (US Government)
ECG	electrocardiogram
FHI	Family Health International
HIV	human immunodeficiency virus
ICD-10	International Classification of Disease, 10th revision
IDUs	injecting drug users
LSD	lysergic acid diethylamide
NGO	nongovernmental organization
PLWHA	people living with HIV and AIDS
OST	opioid substitution therapy
USAID	United States Agency for International Development
WHO	World Health Organization

# Managing non-opioid drug dependence

## OVERVIEW



Objectives:

By the end of the session participants will:

- Be familiar with common amphetamine-type stimulants (ATS) and their patterns of use in Asia
- Be familiar with symptoms of non-opioid dependence and medications used to deal with these symptoms
- Be able to describe relapse prevention approaches



Time to complete session:

1 hour 45 minutes



Session content:

- Drugs and their effects
- Amphetamine use
- Drug dependence: a chronic “health impairment”
- Treatment interventions
- Co-morbid mental illness
- Treatment of non-opioid drug use



Training materials:

- PowerPoint presentation 5: Managing non-opioid drug dependence
- Exercise 5: Case studies 1 and 2

## DRUGS AND THEIR EFFECTS

To provide the background to this module it is important to refresh your understanding of the symptoms of various drugs used and the medications necessary to treat them.

1. **Stimulants:** This group includes coffee, nicotine, cocaine, amphetamines and Ecstasy. The physiological effects of use are arousal, exhilaration, anxiety, a feeling of well-being, decreased appetite, weight loss, indifference to pain and fatigue.

In addition, there may be irritability, irrationality, unpredictability, restlessness, panic, paranoia, decreased or increased concentration, dilated pupils, sexual arousal or feelings of affection. Often, there are problematic feelings of strength, prowess or violence.

Rarely, there is myocardial ischaemia or infarction, cardiac arrest or stroke.

2. **Sedatives:** Alcohol, cannabis, benzodiazepines, inhalants and opioids

Physiological effects include euphoria, disinhibition, a feeling of calmness and well-being, reduced anxiety, stress and pain, decreased concentration and coordination, with sedation, drowsiness and respiratory suppression.

The pupils may be dilated or constricted, appetite diminished, nausea, decreased motivation, paranoia, aggressiveness or hallucinations.

Rarely, some of the drugs in this group can cause drug-induced psychosis.

3. **Hallucinogens:** Lysergic acid diethylamide (LSD), cannabis, Ecstasy, magic mushrooms

This group produces a variety of intense sensory experiences with mixing of the senses, distortion of the assessment of time and space, visual hallucinations, a rapid pulse, dilated pupils, nausea and hypertension.

Variably, this group of drugs produces relaxation, a feeling of well-being, paranoia, confusion, anxiety, loss of appetite and rarely psychosis.

## AMPHETAMINE USE

The use of amphetamines is initially characterized by functional feelings of energy, enthusiasm, productivity and particularly euphoria. With repeated use (and higher doses) there is an increasing search for that early, intense euphoria and an increasingly disturbed sleep cycle.

With repeated amphetamine use, stereotyped, repetitive activity develops around the drug use itself to the exclusion of other activities. Progression to higher dose binges may last for days with sleep deprivation and psychopathology that includes hallucinations, paranoia, anxiety or overt psychosis.

These periods of prolonged use ("binges") are eventually followed by exhaustion and withdrawal dysphoria, with hypersomnia and depression (even suicidality).

## DRUG DEPENDENCE: A CHRONIC "HEALTH IMPAIRMENT"

Amphetamine abuse can lead to dependence, which is a typical, chronic, relapsing condition, characterized by exacerbations and remissions, with a number of predisposing conditions and a cycle of evolution and resolution.

Relapse following periods of abstinence appears closely related to geographical and social cues.

**Criteria for dependence syndrome:** See ICD-10, chapter 5.

A diagnosis of an amphetamine dependence syndrome can be made if three or more of the following have been present together at some time during the previous year:

- Desire or sense of compulsion to take the substance
- Difficulty in controlling substance-taking behaviour (amounts)
- Tolerance
- Withdrawal
- Neglect of alternative pleasures
- Substance use despite clear evidence of overtly harmful consequences.

### Amphetamine-related harms

Even short-term or a single use of amphetamines can generate paranoia, irritability, anger and violence. Recurrent use is associated with weight loss, anxiety and insomnia.

Associated with prolonged use are (often violent) crime, theft, drug syndicates and consequent legal problems and imprisonment. Suicide, accidental death, trauma and murder are much more common in an amphetamine or cocaine subculture.

Sexual risk is markedly increased by transition to sex work or participating in unsafe and prolonged sex. There is also a predictable decline in financial situation resulting in poverty, with considerable stigma, social and legal problems.

Rarely, the acute use of amphetamines (particularly IV) can lead to intracerebral haemorrhage, myocardial ischaemia or psychosis.

In addition to the harms of the drug use, there are the harms associated with infection due to injection use: bloodborne viral infections from shared equipment (hepatitis, HIV), systemic contamination (endocarditis, fungal abscess, osteomyelitis), and local infection from poor hygiene or frequent injection.

### Problematic amphetamine use

Problematic use, as distinct from recreational, functional or dependent drug use, is associated with weight loss, dysfunctional relationships, domestic violence, anxiety, aggression, paranoia, sleep deprivation, insomnia and even a sore throat from smoking methamphetamines. In addition, interruption of work after heavy weekend binges is common.

The use of sedatives such as alcohol, benzodiazepines, cannabis or heroin to “come down” from an amphetamine binge can generate severe problems of its own.

## TREATMENT INTERVENTIONS

### Acute intoxication

The interventions available for acute intoxication are largely social and supportive but include the provision of a non-stimulating environment, support, reassurance and the prevention of harm to users and others. This is best provided in a safe space to “chill out,” avoid confrontation and encourage the support of family or sober friends.

Medical interventions include the monitoring of fluid (and food) intake and output, benzodiazepines for severe agitation and anxiety (if not controlled by the environment), and occasionally antipsychotics (haloperidol/chlorpromazine, risperidone) if agitation is severe or associated with psychotic symptoms.

### Complicated intoxication

This usually presents as an acutely disturbed mental state (delirium/paranoia) associated with nausea, vomiting, sweating, malaise or pain (chest/abdominal).

The first aid or emergency physician should explore the recent history of drug use from the patient, friends and family, correct the fluid and electrolyte status, monitor the ECG, blood pressure (BP) and look for signs of hypo - or hyperthermia. The patient may require cooling and sedation for referral to hospital or intensive care.

### Amphetamine withdrawal

This difficult syndrome usually lasts 2–4 weeks though the acute “crash” only lasts for 1–4 days and is characterized by fatigue and exhaustion, hunger, emotional lability, overwhelming desire to sleep (but may sleep poorly), and craving.

This syndrome is then followed by strong urges to use amphetamines, which may increase over the following six weeks with disrupted sleep, headache and bodyache, increased appetite, irritability and paranoia.

The dependence and withdrawal syndromes should be treated sparingly and symptomatically with great care shown if benzodiazepines are used. Return to normal occurs 1–3 months after cessation of amphetamine use, though the craving persists for years.

### Non-pharmacological management of withdrawal

In addition to the symptomatic treatment outlined above, management of the environment is probably more important with the provision of safe, secure surroundings, access to “useful” family and other supports, instruction in relaxation and sleep advice, with contingency management and other drug counselling.

An inpatient facility or detoxification centre can be the site for this “care”, particularly in the presence of polydrug dependence, psychiatric complications, absence of social supports or a previous complicated withdrawal.

It is to be noted that inpatient treatment of withdrawal with tapered reduction of amphetamine use is no more effective than doing nothing.

### Relapse prevention

Interventions that have been shown to have some positive impact on relapse to amphetamine use are brief interventions and motivational interviewing, generic drug counselling, cognitive-behavioural therapy, cue exposure and contingency management.

In addition, behavioural approaches using skills development, vocational training, recreation groups, family therapy and community or cultural reconnection all add to the above.

Treatment of any underlying psychopathology, particularly mood disorder, is vital for effective relapse prevention.

Harm reduction counselling and referral for peer group support, residential rehabilitation or to Narcotics Anonymous may be appropriate.

## Ineffective therapies

It is important to note that some programmes have not been found to be any better than placebo. These include acupuncture, hypnosis, Antabuse<sup>®</sup>, naltrexone, antidepressants (in the absence of clinical depression), the MATRIX<sup>®</sup> programme, Narconon<sup>®</sup> or Crimonon<sup>®</sup> (Scientology), imprisonment or incarceration for rehabilitation.

## Benzodiazepine dependence

Once established, dependence on benzodiazepines is another difficult syndrome with no short-term withdrawal treatment available. The recommended treatment is a long, slow reduction over four or more months by transferring the patient to long-acting daily dispensed benzodiazepine, reducing the dose every two weeks by a maximum of 10% per day.

Long-term maintenance is occasionally necessary, though great care must be taken if opiate or alcohol dependence are also present.

## Cannabis dependence

The identification of cannabis dependence is still a controversial syndrome. Withdrawal symptoms are characterized by insomnia, night sweats, irritability and mood swings, and has a prolonged duration of 10–14 days.

The experience of withdrawal can be assisted by the judicious use of benzodiazepines with or without the use of mood-stabilizing anticonvulsants. It is very often necessary to undertake cannabis withdrawal in the inpatient setting to successfully achieve the prolonged abstinence necessary to complete the process.

In general, with problematic cannabis use, the implementation of a harm reduction approach with generic counselling using cognitive-behavioural therapy and supportive approaches is the most effective intervention. There is good evidence for the use of peer support or counselling performed in groups. A number of well-researched step-wise programmed interventions are available for groups and individuals.

## Alcohol dependence

Alcohol dependence is characterized by the following: salience of drinking, narrowing repertoire, craving for alcohol, loss of control, tolerance, abstinence syndrome and relapse following abstinence. It is a brain disorder. With repeated alcohol exposure, long-lasting changes occur in the receptors and in the series of chemical interactions they signal. Neuroadaptation involves changes at many different levels, from the genetically directed production of critical proteins to physical changes in the structure of the cells on both sides of the synapse – that is, both the signalling and the receiving cell. Neuroadaptation is linked to tolerance, withdrawal and craving. Alcohol withdrawal can be effectively managed with long half-life benzodiazepines such as diazepam. Severe withdrawal states characterized by delirium, seizures, and severe agitation need to be referred to the drug treatment services or general medical services for management. Thiamine should be given intramuscularly in chronically dependent patients as it is more effectively absorbed by this route in the early stage of withdrawal. Maintenance of alcohol abstinence or reduced use can be enhanced by the use of

naltrexone or acamprosate, both of which reduce the cravings associated with withdrawal from alcohol dependence. Although naltrexone is more effective in reducing relapse to alcohol use, it cannot be used during opioid substitution therapy (OST) nor should it be used in heroin users as it blocks the effects of opiates. In these cases, acamprosate should be used. Pharmacotherapy to reduce relapse should be given in conjunction with psychosocial interventions and support. By instituting pharmacotherapy the clinician can effectively establish a therapeutic alliance with the patient. Psychosocial interventions will facilitate better adherence to treatment.

## CO-MORBID MENTAL ILLNESS

Problematic drug use is much more common in those with mental health problems such as schizophrenia, depression, personality disorder, bipolar disorder and anxiety disorder. The prevalence of one with the other occurs is about 45–55% of patients, with half of all problematic substance users having a co-morbid mental health condition.

The disability experienced from the combination of mental health problems and problematic drug use is significantly higher than either alone, with poorer treatment outcomes. The greatest health impact is on those who are drug users and have mental illness; however, cigarette smoking has the greatest impact, with over 60% of smokers dying from its use.

The co-existent morbidity from drug use and mental illness is usually underserved, with the addition of complex social and legal issues. The increased risk of suicide, violence and “difficult behaviour” in this group of patients and the high rate of relapse of either condition makes their treatment unattractive to many services.

### Management issues for co-morbidity

The management of a service for drug users with a co-morbid mental health problem needs to assess them using a combination of self-reported and collateral information from friends, family and other professionals. Laboratory investigations and questionnaires can be useful in screening for drug use in those with mental illness and for mental illness in drug users, as well as their readiness to embark on behaviour change.

The integration of treatment services with parallel, sequential or integrated models of care needs to address cross-referral, access to care and the difficulty of follow up in this group.

The key issues for care outcomes seem to be fostering engagement and motivation, providing motivational interviewing and cognitive-behavioural therapy, and medications for psychosis, depression and anxiety. A proactive (assertive) outreach component has been shown to be of benefit.

## TREATMENT OF NON-OPIOID DRUG USE

Non-opioid drug use is a growing issue in Asia for which no simple, effective pharmacological treatment or psychological therapies are available.

Methamphetamine use and dependence is the most problematic of the non-opioid drugs used in the region, with demonstrated effectiveness of the use of peer group support, community reconnection and employment strategies. There is little evidence for the effectiveness of residential or other complex therapeutic programmes.

Co-morbid mental illness is a complex condition that requires recognition and additional treatment using engagement, user-friendly services and assertive outreach.

## SUMMARY

For this common regional problem, it is necessary to become familiar with the symptoms of non-opioid dependence, the medications used to deal with these symptoms, and be aware of effective relapse prevention approaches.

## REFERENCES AND RECOMMENDED READING

Australian National Council on Drugs. *Evidence supporting treatment: the effectiveness of interventions for illicit drug use*. Woden, Australia, Australian National Council on Drugs, 2001 ([http://www.ancd.org.au/publications/pdf/rp3\\_evidence\\_supporting.pdf](http://www.ancd.org.au/publications/pdf/rp3_evidence_supporting.pdf)).

Department of Health and Aging. *Management of patients with psychostimulants use problems: guidelines for general practitioners*. Canberra, Department of Health and Aging, Australian Government, 2004 ([http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/content/AC11DD6A037F9ECFCA25717D00811748/\\$File/psychostimnts\\_gp.pdf](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/content/AC11DD6A037F9ECFCA25717D00811748/$File/psychostimnts_gp.pdf)).

Department of Health and Aging. *Models of intervention and care for psychostimulant users*. Canberra, Department of Health and Aging, Australian Government, 2004 (<http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-publicat-document-mono51-cnt.htm>).

National Drug and Alcohol Research Centre. *Co-morbid mental disorders and substance use disorders: epidemiology, prevention and treatment*. Sydney, Australia, National Drug and Alcohol Research Centre, University of New South Wales, 2003 ([http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-publicat-document-mono\\_comorbid-cnt.htm/\\$FILE/mono\\_comorbid.pdf](http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-publicat-document-mono_comorbid-cnt.htm/$FILE/mono_comorbid.pdf)).

World Health Organization. *Amphetamine-type stimulants: a report for the WHO meeting on amphetamines, MDMA and other psychostimulants, Geneva 1996*. Geneva, WHO, 1997.

## EXERCISE 5.1

### CASE STUDIES

Please discuss these cases in groups of two or three for about 15 minutes:

- Identify the features of drug use.
- Identify the characteristic features of dependence.
- Provide feedback to the group on your insights.

#### Case study 1

**Ronny, a 26-year-old crystal methamphetamine (*shabu*) smoker, presents to a new health centre doctor inquiring about treatment.**

Ronny has attended this clinic occasionally over the past two years, obtaining medication for outpatient drug withdrawal several times. On one occasion one year ago, he entered inpatient psychiatric treatment for “drug-induced psychosis”; however, he discharged himself after two weeks. He last attended the health centre two months ago for an outpatient withdrawal using benzodiazepines.

Ronny describes first smoking methamphetamines five years ago and first regular smoking use three years ago. He states he is currently smoking *shabu* on average three times a day, and spends approximately US\$ 10 each day. He states that he remained “clean” for approximately three weeks after the last withdrawal, then recommenced use again – escalating to this current level of use about one month ago. This is a recurring pattern for Ronny, with relapses soon after each withdrawal attempt.

Ronny smokes cigarettes but describes no other regular drug use. He has no other significant medical conditions. He lives in the family house with his brother who also uses methamphetamines. He is employed in the family import/export business and his parents live in Australia. He is married but his wife has moved with their young baby to her parent’s house more than 200 km away. He maintains regular contact with his sister, who has encouraged him to enter treatment.

The doctor is encouraged that finally Ronny is thinking more about longer-term treatment than merely another withdrawal, as he had been suggesting for a long time that he enter some form of longer-term treatment. In the past Ronny has been reticent about counselling and unprepared to enter long-term rehabilitation.

1. **What are the characteristic features of opioid dependence in Ronny?**
2. **What are the possible harms?**
3. **Where is he located in the cycle of change or motivation?**

## Case study 2

Aung is a 24-year-old labourer and methamphetamine user with a three-year history of regular oral methamphetamine consumption. He presents to his doctor with his pregnant wife seeking “help” about a badly infected cut on his forearm from a knife fight.

He explains that he suspected his neighbour of plotting to have him arrested and started a fight. The doctor treats the local infection with a prescription for antibiotics, and recommends to the patient to cease his amphetamine use. Aung states that he has it under control and is reluctant to consider stopping, but is prepared to “go along” with the doctor, and offers no objection when the doctor makes an appointment for him to attend the local drug treatment centre in four days for an assessment.

A week later, Aung presents again with his wife to the doctor seeking another prescription for antibiotics as the infection has not entirely resolved. It is clear that Aung has continued his drug use, and that he had not kept his appointment with the drug treatment centre withdrawal unit. The doctor is frustrated, but he does not express his disappointment to Aung, and he provides another prescription for antibiotics. He concludes the consultation with an offer for Aung and his wife to come back again to see him if he wants treatment in the future.

Six weeks later Aung presents again, still somewhat ambivalent about stopping his drug use altogether, but his methamphetamine use has escalated in recent weeks. He is very unhappy and has serious financial problems. His wife has returned to her family and he may lose his job. Going through the options, Aung agrees that he cannot keep using methamphetamine as he has been doing and that things seem out of control.

The doctor again suggests an inpatient detoxification programme but Aung agrees to withdrawal medication as he does not want to go to an inpatient unit because he has to work. He begins an outpatient withdrawal regimen with the doctor, who also engages a local drug treatment NGO to provide some support and counselling during and after the withdrawal.

- 1. What are the characteristic features of amphetamine dependence in Aung?**
- 2. What are all the possible harms he may experience?**
- 3. What can be suggested to reduce these harms?**
- 4. Where is he located in the cycle of change or motivation?**
- 5. What do you think are the treatment options for him?**

# Presentation 5: Managing non-opioid drug dependence

## Managing non-opioid drug dependence

Drug use, dependence and treatment

## Session objectives

By the end of the session the participants will:

- Be familiar with the symptoms of non-opioid use and dependence, and medications used to deal with these symptoms
- Be able to describe relapse prevention approaches

## Injecting in Asia

- Not all drugs injected in Asia are opioids.
- The main non-opioid drugs injected in Asia are amphetamine-type stimulants (ATS).

## Amphetamine use

- Early use – energy, enthusiasm, productivity
  - ◆ + euphoria
- With repeated use (and higher doses)
  - ◆ Increasing search for intense euphoria
  - ◆ Very stereotyped, repetitive activity around drug use
  - ◆ Exclusion of other activities
- Progression to high-dose binges lasting for days
  - ◆ Sleep deprivation and psychopathology
    - Hallucinations, paranoia, anxiety or overt psychosis
  - ◆ Followed by exhaustion and withdrawal dysphoria
  - ◆ Hypersomnia and depression (even suicidality)

## Dependence is a typical chronic “health impairment”

- Drug dependence is a chronic relapsing condition characterized by exacerbations and remissions with a number of predisposing conditions and a cycle of evolution and resolution
- “Life cycle” appears to be predetermined by the drug itself: Examples :
 

heroin	10–15 years
amphetamines	5 years
cigarettes	>40 years
- Relapse is closely related to geographical and social cues

## Criteria for dependence syndrome

Summary ICD-10

A diagnosis of dependence syndrome can be made if three or more of the following have been present together at some time during the previous year:

- Desire or sense of compulsion to take the substance
- Difficulty in controlling substance-taking behaviour (amounts)
- Tolerance
- Withdrawal
- Neglect of alternative pleasures
- Substance use despite clear evidence of overtly harmful consequences

### Activity 1: case studies

- Please discuss these cases in groups of two or three for about 15 minutes:
  - ◆ Identify the features of drug use
  - ◆ Identify the characteristic features of dependence
  - ◆ Provide feedback to the group on your insights

### Activity 1 – case study: Ronny

- What are the characteristic features of opioid dependence in Ronny?
- What are the possible harms?
- Where is he located in the cycle of change or motivation?

### Activity 1 – case study: Aung

- What are the characteristic features of amphetamine dependence in Aung?
- What are all the possible harms he is experiencing?
- What can be suggested to reduce the harms?
- Where does he sit in the cycle of change or motivation?
- What do you think are the treatment options for him?

### Activity 2: amphetamine-related harms

- In small groups of three or four list the potential harms associated with amphetamine use
  - ◆ Spend ten minutes brainstorming together
  - ◆ Then provide feedback to the larger group
  - ◆ Perhaps there will be some time to discuss the causes of harm and actions to mitigate them
- May be helpful to break down the potential harms into biological, psychological, social and economic

### Activity 3: amphetamine-related harms

- Paranoia, irritability, anger, violence
- Weight loss, anxiety, insomnia
- Crime, theft, imprisonment, drug syndicates
- Suicide, accidental death, murder
- Sex work, unsafe prolonged sex
- Financial, poverty, community, legal, stigma
- Stroke, heart attack, psychosis
- Harms associated with injection use:
  - ◆ Infection
    - Bloodborne infections from shared equipment – hepatitis, HIV
    - Systemic contamination infections – endocarditis, fungal abscess, osteomyelitis
    - Local from poor hygiene and frequent injection

### Problematic amphetamine use

- Weight loss
- Dysfunctional relationships
- Domestic violence
- Sore throat from smoking methamphetamines
- Anxiety, aggression, paranoia
- Sleep deprivation, insomnia
- Interruption in work after weekend binges
- Use of sedatives to “come down”
  - ◆ Alcohol, benzodiazepines, cannabis, heroin

### Treatment interventions

- Acute intoxication
  - ◆ Provision of non-stimulating environment
  - ◆ Provision of support and reassurance
  - ◆ Prevent harm to self and others
  - ◆ Provision of safe space to “chill”
- Avoid confrontation
- Encourage family support
- Monitor fluid (and food) intake and output
- Benzodiazepines if agitation and anxiety not controlled
- Antipsychotics (haloperidol/chlorpromazine) if agitation or anxiety not contained or psychotic symptoms present

### Complicated intoxication

- Acute:
  - ◆ Disturbed mental state (delirium/paranoia)
  - ◆ Nausea, vomiting
  - ◆ Sweating, malaise, chest/abdominal pain
- Explore recent history of drug use – friends / family
- Correct fluids and electrolytes
- Monitor ECG and BP
- Sedate for extreme agitation
- Monitor for hypo-/hyperthermia – may need cooling
- Refer to hospital or intensive care

### Amphetamine withdrawal

- Lasts 2–4 weeks but “crash” only for 1–4 days:
  - ◆ Fatigue and exhaustion
  - ◆ Hunger
  - ◆ Emotional irritability
  - ◆ Overwhelming desire to sleep but may sleep poorly
  - ◆ Craving
- Followed by strong urges to use
  - ◆ Increase over the next six weeks
- Disrupted sleep
- Headache and bodyache
- Increased appetite
- Irritability and paranoia
  - ◆ Treat symptomatically – great care with benzodiazepines

Return to normal 1–3 months after cessation of use

### Non-pharmacological management of withdrawal

- Environment management
  - ◆ Safe situation
  - ◆ Family and other support
  - ◆ Relaxation and sleep advice
  - ◆ Contingency management counselling
- Inpatient/detoxification centre for “care”
  - ◆ Polydrug dependence
  - ◆ Psychiatric complications
  - ◆ Absence of social supports
  - ◆ Previous complicated withdrawal
- Note: Inpatient treatment of withdrawal and tapered amphetamine withdrawal is as effective as doing nothing

### Relapse prevention

- Brief interventions/motivational interviewing
- Generic drug counselling
- Cognitive–behavioural therapies
- Cue exposure/contingency management
- Behavioural approaches using:
  - ◆ Skills development
  - ◆ Vocational training
  - ◆ Recreation
  - ◆ Family therapy and community reconnection
- Harm reduction counselling and peer group support
- Treatment of underlying psychopathology
- Residential rehabilitation/Narcotics Anonymous

### Ineffective therapies

- Some programmes have not been found to be any better than placebo:
  - ◆ Acupuncture
  - ◆ Antabuse<sup>®</sup>
  - ◆ Naltrexone
  - ◆ Antidepressants (in the absence of clinical depression)
  - ◆ MATRIX<sup>®</sup> programme
  - ◆ Narconon<sup>®</sup>/Crimonon<sup>®</sup> (Scientology)
  - ◆ Imprisonment/incarceration for rehabilitation
  - ◆ Hypnotherapy

### Benzodiazepine dependence

- No short-term withdrawal treatment available
  - ◆ Recommended long, slow reduction over 4+ months
    - Transfer to long-acting benzodiazepine
    - Dispensed daily
    - Dose reduced every two weeks by a maximum of 10% per day
  - ◆ Long-term maintenance occasionally necessary
  - ◆ Great care needed in treatment if opiate or alcohol dependence also present

### Cannabis dependence

- Controversial syndrome
  - ◆ Characterized by:
    - Insomnia
    - Irritability and mood swings
- Prolonged withdrawal over 10–14 days
  - ◆ Assisted with judicious use of benzodiazepines and/or anticonvulsants
  - ◆ Often needs to be treated as on inpatient for successful completion
- Harm reduction
- Generic counselling with CBT most effective
  - ◆ Can be performed in groups or as individuals
  - ◆ A number of researched step-wise programmes available

### Alcohol dependence: a brain disorder

- With repeated alcohol exposure, long-lasting changes occur in receptors and in the series of chemical interactions they signal.
- Neuroadaptation involves changes at many different levels, from the genetically directed production of critical proteins to physical changes in the structure of the cells on both sides of the synapse – that is, both the signalling and the receiving cell.
- Neuroadaptation is linked to tolerance, withdrawal and craving.

Source: NIAAA, 2004.

### Alcohol dependence: withdrawal services

- Planned withdrawal management is ideal.
- Alcohol withdrawal can be effectively managed with long half-life benzodiazepines such as diazepam.
- Severe withdrawal states characterized by delirium, seizures, severe agitation need to be referred to drug treatment services or general medical services for management.
- Thiamine should be given in chronically dependent patients.

### Alcohol dependence: medications

- Naltrexone and acamprosate are two medications that act on the receptor systems in the brain on which alcohol is known to have an impact.
- Naltrexone blocks some of alcohol's rewarding effects.
- Acamprosate's precise mechanism of action is not yet known, but it is thought to affect the activity of the neurotransmitter glutamate.

### Alcohol dependence

- Genetic as well as environmental influences contribute to alcohol dependence.
- Pharmacological drugs are effective in treatment.
- Relapse prevention techniques and self-help groups are useful.
- A combination of pharmacotherapy and psychological methods works best for dependent individuals.
- Improve therapeutic alliance with pharmacotherapy.
- Enhance compliance with pharmacotherapy through psychosocial interventions.

### Co-morbid mental illness

- Problematic drug use and:
  - ◆ Schizophrenia
  - ◆ Depression
  - ◆ Personality disorder
  - ◆ Bipolar disorder
  - ◆ Anxiety disorder
- Prevalence of one with the other about 45–55%
  - ◆ Half of all substance dependents have co-morbid conditions
- Disability higher from a combination than either alone
  - ◆ Plus poorer treatment outcomes
- Greatest health impact is from cigarette smoking
- Co-morbidity usually underserved
  - ◆ Complex social and legal issues
  - ◆ Increased risk of suicide, violence, “difficult behaviour” and relapse

### Management issues for co-morbidity

- Assessment
  - ◆ Self-report
  - ◆ Collateral information
  - ◆ Laboratory investigations
  - ◆ Screening:
    - For drug use in those with mental illness
    - For mental illness in drug users
  - ◆ Readiness to change
- Integration of treatment
  - ◆ Parallel / sequential / integrated models of care
- Fostering engagement and motivation
  - ◆ Motivational interviewing / CBT
- Medication for psychosis, depression and anxiety

### Treatment of non-opioid drug use

- A growing problem in Asia
- No simple pharmacological treatment or psychological therapies
- Methamphetamine use and dependence the most problematic
  - ◆ Some excellent research demonstrates effectiveness of:
    - Peer group support
    - Community reconnection and employment strategies
    - Little evidence for residential or other complex programmes
- Co-morbid mental illness requires recognition and treatment
  - ◆ Engagement and user-friendly services
  - ◆ Assertive outreach

### Summary

- Be familiar with symptoms of non-opioid dependence and medications used to deal with these symptoms.
- Be aware of a number of relapse prevention approaches.

## **Treatment and Care for HIV-Positive Injecting Drug Users**

The "Treatment and Care for HIV-Positive Injecting Drug Users" training curriculum is designed for clinicians who provide treatment and care, including ART, for HIV-positive injecting drug users. The training curriculum consists of a trainer manual, 12 participant manuals, and a CD-ROM with PowerPoint presentations and reference articles. Topics covered in the curriculum include:

- Module 1: Drug use and HIV in Asia
- Module 2: Comprehensive services for injecting drug users
- Module 3: Initial patient assessment
- Module 4: Managing opioid dependence
- Module 5: Managing non-opioid drug dependence
- Module 6: Managing ART in injecting drug users
- Module 7: Adherence counselling for injecting drug users
- Module 8: Drug interactions
- Module 9: Management of coinfections in HIV-positive injecting drug users
- Module 10: Managing pain in HIV-infected injecting drug users
- Module 11: Psychiatric illness, psychosocial care and sexual health
- Module 12: Continuing medical education
- Trainer manual

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