Withdrawal management of Amphetamine Type Stimulants (ATS) in inpatient units

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Thanks to Jan Hutchison CPC
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OVERVIEW

Case study with amphetamine (ATS) focus from ED perspective

Amphetamine withdrawal, complications and management

Considering pathways of care
Dependent use

Withdrawal due to cessation:
- Voluntary
- Involuntary  > Mental Health  
  > physical health

Post withdrawal support
- Motivational Interviewing to create or consolidate commitment to change
- Craving focused CBT
- Relapse prevention
- Acceptance and Commitment Therapy
- Management of psychological comorbidities

?medications
ICD 10 - Dependence

Three or more of the following have been present together at some time during the previous year:

- A **physiological withdrawal state** when substance use has ceased or have been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance; or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms;

- **Evidence of tolerance**, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol- and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill non-tolerant users);

- A **strong desire or sense of compulsion** to take the substance;

- **Difficulties in controlling** substance-taking behaviour in terms of its onset, termination, or levels of use;

- Progressive **neglect of alternative pleasures** or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects;

- Persisting with substance use **despite clear evidence of overtly harmful consequences**, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.
ICD 10- harmful use

- The diagnosis requires that actual damage should have been caused to the mental or physical health of the user.
- Harmful patterns of use are often criticized by others and frequently associated with adverse social consequences of various kinds. The fact that a pattern of use or a particular substance is disapproved of by another person or by the culture, or may have led to socially negative consequences such as arrest or marital arguments is not in itself evidence of harmful use.
- Acute intoxication, or “hangover” is not in itself sufficient evidence of the damage to health required for coding harmful use.
- Harmful use should not be diagnosed if dependence syndrome, a psychotic disorder, or another specific form of drug- or alcohol-related disorder is present.
ICD-10 Version:2015

I Certain infectious and parasitic diseases
II Neoplasms
III Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
IV Endocrine, nutritional and metabolic diseases
V Mental and behavioural disorders
   F00-F09 Organic, including symptomatic, mental disorders
   F10-F19 Mental and behavioural disorders due to psychoactive substance use
      F10 Mental and behavioural disorders due to use of alcohol
      F11 Mental and behavioural disorders due to use of opioids
      F12 Mental and behavioural disorders due to use of cannabinoids
      F13 Mental and behavioural disorders due to use of sedatives or hypnotics
      F14 Mental and behavioural disorders due to use of cocaine
      F15 Mental and behavioural disorders due to use of other stimulants, including caffeine
      F16 Mental and behavioural disorders due to use of hallucinogens
      F17 Mental and behavioural disorders due to use of tobacco
      F18 Mental and behavioural disorders due to use of volatile solvents
      F19 Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances
   F20-F29 Schizophrenia, schizotypal and delusional disorders
   F30-F39 Mood (affective) disorders
   F40-F48 Neurotic, stress-related and somatoform disorders
   F50-F59 Behavioural syndromes associated with physiological disturbances and physical factors
   F60-F69 Disorders of adult personality and behaviour
   F70-F79 Mental retardation
   F80-F89 Disorders of psychological development
   F90-F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence
   F99-F99 Unspecified mental disorder
VI Diseases of the nervous system

http://apps.who.int/classifications/icd10/browse/2015/en
Flo, 39 yo admitted to ED via SAAS following fight with mother in law re the custody of her children, suicidal, agitated

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

In last 2 days had used

Binge of crystal methamphetamine, usually smokes 1 point 4x week, last 2 days injected 2 points/day, last use 15 hours ago

Drank 2 bottles [160gms] wine, last use 10 hours ago

6 MDMA tabs for last 2 days, last use 24 hours ago

3 bongs /day cannabis in last week, usually smokes a bong a night to assist sleep, last use 10 hours ago

Reports no other over the counter or prescription drug misuse

Methamphetamine 10 points/gram
cannabis 28gms /ounce, 4 joints/gm, 1 cone = 0.1g
alcohol 8 standard drinks/bottle wine, 10gms/s/d
History of Alcohol Tobacco and Other Drugs (ATOD)

Long cannabis use since teens…. trying to cut back to enable to see children more

Amphetamine use since meeting friend at the pub 2 years ago…. binge use when can afford it most weeks, smokes and injects. MDMA x1 year

Alcohol, long term use, only binge pattern x1 month since increasing amphetamine use
History of withdrawal from alcohol, no seizures
Uses with friends and alone

Has not been tested for Hep C , has not had Hep B shot
Physical Assessment

Vital signs, Neurological observations, Nutritional status BSL, Fluid balance, Level of consciousness and signs of ATOD intoxication or withdrawal, injection sites, skin. BAL, Urine drug screen, bloods…LFT,CBP

Flo presented dishevelled, thin with distended abdomen, reddened cubital fossa, ulcers on face Slightly drowsy, coherent at times then agitated, then very agitated, rapid speech, uncontrolled movement of jaw, vomited on arrival, uncoordinated, tremor, headache

Urine drug screen showed THC, amphetamine, methamphetamine, BZD, no opiates,

Vital signs BP 155/90 HR 100 R 22 Temp 37.2, no nystagmus or diplopia, was ataxic, dilated pupils [6mm]
BAL 0.04, ECG NAD

Themes of grief and frustration with delusional content regarding mother in law stealing her children and keeping in locked room
Medical History to Consider

General health problems
Diabetes, Renal disease, cancer, stroke, infections
Septicaemia, human immunodeficiency virus (HIV), hepatitis A, B and C,
Liver or pancreatic problems, chronic gastritis, high blood pressure, heart disease,
Breathing problems.
Head injuries, abnormal menstrual pattern, menopause, poor nutrition and hydration status.
Dental issues

Any recent or concerning unintended weight loss or gain possible injuries—recent and not so recent
Psychosocial Issues

Family (any problems or special circumstances?)
- Housing; risk of homelessness
- Children (any urgent issues, Families SA, current need for care or assistance?)
- Employment
- Legal/Forensic
- Financial
  Loss of drivers licence, firearms licence

- Other agencies involved - may already have a plan, undertake follow-up

- Possible family history of ATOD use issues
- Any negative social consequences of the person’s ATOD use and related situations.
Mental Health Issues to Consider

Any previous psychiatric/mental health problems such as depression, panic attacks, anxiety disorder, bi-polar disorder, schizophrenia, psychosis, suicide.

[If possible piece together temporal relationship between MH symptoms and substance use]

- Related admissions or medical treatment
- Any medications prescribed for the disorder—past and present
- Any known family history of mental health problems.

MSE appearance, behaviour, pressured speech, delusional, thought disorder, paranoia,, mood, insight, rapport
Risk, harm to self or others
‘Typical’ Pattern of Use

Pead, et al. (1996, p. 37)
Timelines

- Acute agitation and toxic effects
- Crash and acute depression
- Withdrawal
- Paranoia and psychosis
- Mood related problems
- Sleep problems

DAYS  WEEKS  MONTHS
Withdrawal from ATS if using regularly

Turning point 2004

> Crash 1-3 days, (Comedown) exhaustion, depression, increased sleep
> 2-10 days (Withdrawal) agitation, cravings to reuse, disturbed sleep, headache, general aches and pains, increased appetite, feeling paranoid, easily upset
> 7-28 days, starting to settle, mood swings between anxious and flat, cravings, poor sleep cravings, increased appetite
> 1-3 months, return to normal sleep patterns, mood and activity levels, improvement in general health and mood
Assessment of withdrawal

Use scale which assesses

> Vital signs
> Nausea, restlessness, racing thoughts, irritability, feelings of unreality, depression and sleep

eg Amphetamine Cessation Symptom Assessment Scale

This assists to gauge level of distress and need for symptomatic medication
Getting through Withdrawal from ATS

- Cravings
- Sleep, hints for better sleep
- Relaxing
- Mood swings
- Strange thoughts, common for 8 days
- Eating again, eat healthy
- Aches and pains, warm bath, massage
- High risk situations, these vary, friends pay day
- Counselling
- Its all too much, concentrate on immediate
- Sex and Withdrawal, may increase
Damage caused by large surge of dopamine in mid and frontal lobes of brain …stimulates reward and emotion

Effects on learning, memory, exec function… amount of use does not correlate to cognitive impairment

Poor verbal memory, slowed processing, disinhibition.

Decision making, cognitive flexibility, selective attention lessened

Reward is related to environmental cues, need to learn to manage impulsive behaviour… hard as executive function depleted. Have reduced responses for negative outcomes, therefore behaviour not modified, similar in gambling

May be persistent

Consider history of previous brain injury

Treatments need to consider this and how they are delivered
Coping with Cravings

> Urges to use again common, not caused by lack of will power
> Normal process of body adjustment during withdrawal, become fewer and easier after withdrawal
> Prepare for cravings
> Use 4 d’s delay, distract, decatastrophise, drink water
> Remind self of reasons to stop
> Urge surfing
> Lots of reassurance and reality information
Medication management in Inpatients

- Focus on monitoring vital signs and treat symptomatically
- Recommended by DASSA, check own protocols
- Benzodiazepines are drug of choice for either excessive agitation or anxiety
- Either Lorazepam or Diazepam 5mgs QID prn equivalent
- Olanzapine 2.5-5mgs 4 hourly prn
- Paracetamol

- Mirtazapine for consistently low mood, titrated dose 15/30/60/60>> taper down if symptoms resolve, continue if persistent
- Modafinil 400mg/d before 1000hr [beware rash/SJ synd] taper post dc 6 weeks
Readiness for Change

Concerns about their alcohol and other drug use
• their pattern of use
• influences on their use
• reasons for changing
• likes/dislikes about their ATOD use
• consequences of ATOD use
• risk factors of ATOD use
• supports for change, barriers to change, e.g. partner uses ATOD too
• stocktaking their current satisfaction with life.
Motivational Interviewing..what it is……
(Miller and Rollnick et al. 1999+)
Maintain rapport
Accept small shifts in attitude as a worthy beginning
Promote some concern about risk (e.g. for health, legal problems)
Avoid increasing resistance
Promote self-efficacy and responsibility
View lifestyle holistically (each aspect usually affects the other)

Removing BARRIERS to change
Providing CHOICE
Decreasing DESIRABILITY of substance use
Practising EMPATHY
Providing FEEDBACK
Clarifying GOALS and
Active HELPING.
Motivational interviewing...what it’s not.....

I think you should quit drinking...

I think you should shut the fuck up!
Other Considerations for ATS

> Harm minimisation
> Encourage use less often, avoid injecting and smoking
> Encourage lifestyle, sleep, exercise, nutrition

> Co morbidity, work together depending where the client is at ie withdrawal, psychosis, relapse, rehab, counselling and support
Resource to assist people seeking help regarding their methamphetamine use.

Available via NDARC:

History of Injecting and/or other Risk Factors

> Use clean needles and syringes and other injecting equipment (‘gear’)
> Ever share, needles, syringes and other injecting equipment including swabs, spoons, bags, water for dilution, tourniquet
> Can access supplies, clean needles and syringes
> Rotate injecting sites to protect veins and tissues
> Know how to safely dispose of used injecting equipment
> Have adequate knowledge of HIV/hepatitis B and C issues including routes and risk of transmission
> Have had any health complications from injecting (e.g. abscesses, thrombosis, viral illness, and heart or chest problems)
> Have a good understanding about safe sex, use of condoms
> Where is your nearest clean needle Program (CNP)?
HBV or HCV or HIV

>> pre-test counselling
>> test
>> post-test counselling
>> immunization
Optional Pathways of Care

What decisions to make for best outcome for Flo?

Management of withdrawal at Glenside DASSA?

Is psychosis prime management consideration, transfer to MH unit?

Goal setting, what does Flo want to see happen once sober?

Other considerations, risk, previous treatment & adherence
Treatment Issues for ATS
A/Professor Nicole Lee

- Outpatient is best, withdrawal needs to be followed by outpatient treatment, not helpful in itself
- Protracted withdrawal, up to 18 months with mainly cognitive deficits lasting that long
- Between first use and regular use can be short time, harm minimisation important
- Between first problem use and mental health presentation, short term and requires intervention, otherwise use can go on for up to 5 years without intervention
- Treatment requires large harm min focus with healthy life style focus, particularly regular sleep, behaviour modification around triggers, cravings, healthy diet and water, stop smoking.
- Flexible focus and written material because of cognitive deficits encourage structure
- Followup important with phone call/text reminder as memory and lifestyle may not support attending appointments
DASSA Community Treatments for ATS

- Amphetamine Clinics in metro areas, entry by ADIS 1300131340
- Withdrawal first depending on situation
- Medical Review with pharmacotherapies
- Offers 2 options,
  - Re-focusing for pre contemplative – contemplative stage, limit setting, self care, organisation, memory, use of ACT…values, creative hopelessness
  - Recovery, Abstinence and Relapse prevention goal, ACT for values, urge monitoring, CBT…use of mindfulness, grief & loss, work with families
Pharmacotherapies

> Known treatment management, cognitive enhancers, Modafanil while learning to modify behaviour
> Lisdexamfetamine (DASSA new research) in short term to learn new behaviours, can take 18 months to improve
> During withdrawal, up to 3/12, Benzodiazapines, antipsychotics and antidepressant, Mirtazapine
Community Referrals

- DACAS, Drug and Alcohol Clinical Advisory Service, 83638633
- Northern, Southern & Central DASSA
- ADIS, Alcohol and Drug Information Service, 1300131340
- DASSA Amphetamine Clinic, Central DASSA
- Glenside Withdrawal Unit
- Smart Recovery, both online and at Magdeline Centre,
- New Roads, Relapse Prevention Adelaide, Smithfield, Christies Beach
- NCPIC, cannabis telephone and online service, 1800304050
- AA, NA, QUIT
- Rehab…. Woolshed, New Roads
Relapse prevention strategies

Prepare for lapse and relapse
Raise awareness of positives and negatives about the lapse/relapse event
Strategies to manage next time and reinforcement of reasons for wanting change
Identify triggers for relapse and management
Find coping skills to manage opportunities to change
Avoid risky situations that may trigger relapse
Alcohol/drug refusal skills
Management of cravings
Discuss psycho-therapies such as cognitive restructuring
Discuss behavioural self-management
I didn't think it would work. Neither did anyone else.
But I'm clean today.
It's an amazing feeling!
Intervention saved my life.

**Intervention Allies**
(800) 980-3927
References

Alcohol, Tobacco and Other Drugs: Clinical Guidelines for Nurses and Midwives Version 3, 2012H


DASSA Clinical Procedure, Amphetamine Dependence Treatment Service, SA Health website

The National Methamphetamine Symposium with mentioned speakers www.nceta.flinders.edu.au


+ Addiction a Disorder of Choice Heyman G Harvard University Press 2009
8363 8633

Drug and Alcohol Clinical Advisory Service (DACAS)

24-hour specialist support and advice for health professionals