

GUIDELINES FOR THE MANAGEMENT OF ACUTE SUBSTANCE WITHDRAWAL IN ADOLESCENTS

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1. ABOUT THESE GUIDELINES AND ACKNOWLEDGEMENTS

These guidelines have been written in response to a request from youth mental health, health and justice workers in Auckland, NZ seeking assistance in managing young people going through drug and alcohol withdrawal. In particular the request was around how best to support young people entering youth justice facilities.

Why are these guidelines needed?

Increasingly in New Zealand, various adolescent services are required to manage young people who present in acute substance withdrawal. Circumstances in which young people may experience substance withdrawal include at home (following personal or parental decision to restrict access to substances) and at the time of admission to a forensic unit or hospital. Although abrupt cessation of substances by young people who are addicted (or are developing addiction) is seldom a significant health risk, it is usually a very difficult time for the young person and often distressing. If health professionals and families are able to ameliorate the impact of potential unpleasant psychological and physical withdrawal symptoms there is an increased chance of the adolescent lasting through the process of withdrawal and engaging into ongoing treatment and relapse prevention work into the future. Unpleasant withdrawal symptoms that are not supported may increase the likelihood of relapse.

Why do we need adolescent specific guidelines?

There is little readily accessible and easily comprehensible information to guide health workers in both the identification and management of adolescents who may experience withdrawal. Although there are numerous guidelines for detoxification for substances, these largely concentrate on medical detoxification for adults with addiction to opiates and alcohol. There will be some young people with severe addiction requiring specialist detoxification services however in most cases adolescents will not require this level of expertise and will instead require mainly psychosocial support.

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2. INTRODUCTION

How to use these guidelines

Every day young people are coping with drug and alcohol addiction, either alone or with the support of family and health providers. These guidelines are designed for non-health and primary healthcare providers to inform and assist them when helping young people to stop using alcohol and drugs. The guidelines deal largely with withdrawal from common substances and more specialist interventions (as is often required in opiate withdrawal for example) are not covered in detail.

Most young people will not need specific medical input into their detoxification as the key interventions are supportive and don't involve prescribed medication. Those using these guidelines need to be aware that any specialist (or medical) interventions are likely to occur 'as well as' the approaches described in these guidelines. If a young person is established in withdrawal and health concerns arise requiring medical help, any further recommendations made are likely to be in addition to the steps outlined in these guidelines, so don't stop using them.

Drug and alcohol addiction in young people

About 10% of 16-24 year olds in New Zealand suffer from an alcohol or drug use 'disorder'. A substance use 'disorder' equates to substance use that is causing significant problems. Young people who continue to take drugs or alcohol (substances) even when it is causing them significant problems may be addicted or 'hooked'. If people take a substance regularly for an extended period of time their system adjusts to it both physically and psychologically. Continued exposure may change the way the body and brain works to the extent that the person develops a 'habit' and can't stop using the substance. They may need to take the substance just to feel 'okay' or normal. This is called substance dependence or addiction. About 3% of young people are dependent on alcohol and 2% are dependent on other drugs.

If people with drug or alcohol dependence suddenly stop taking the addictive substance they may go through 'withdrawal'. Withdrawal or 'detox' is usually an unpleasant (and sometimes risky) process the body goes through while re-adjusting to no longer having the addictive substance in the system.

3. SUBSTANCE WITHDRAWAL AND DETOXIFICATION

Stopping using alcohol and drugs safely

Although many adolescents suffer from drug and alcohol dependence, most will be able to stop using substances without medical support. Withdrawal from cannabis, amphetamine and opiates, although unpleasant and difficult, very seldom presents as a significant health risk, even in very dependent (addicted) adults.

Withdrawal from alcohol and other sedatives is potentially more problematic and can be quite risky to health, however heavy alcohol use needs to be sustained in the long term (some years) for significant neuroadaptation (changes in the brain) to occur. Physical symptoms of alcohol dependence and a physical withdrawal syndrome are relatively uncommon in young people but even so, some adolescents can present with a significant alcohol addiction.

Most adolescents will thus be able to safely stop using substances with support from family and friends. Usually the biggest barrier to a successful 'detox' is finding a drug-free environment. However some young people may require input from a primary healthcare provider (GP, nurse or health worker) and a few will need more specialist assistance (via a mental health or addiction service).

Those at higher risk of problems during 'detox' include:

- Those with heavy long-term daily use of alcohol or other sedatives like benzodiazepines
- Those with an established opiate addiction
- Those who have a medical or psychiatric problem including epilepsy, a history of fits, diabetes, schizophrenia or bipolar affective disorder
- Pregnancy

Very rarely, a young person may suffer a seizure or epileptic fit while in withdrawal. If this occurs put the young person in the recovery position and call an ambulance as soon as possible.

Assessing risk of withdrawal

Although there is no easy way to assess how much support a young person will need if they go into withdrawal, obtaining information as accurately as possible about the young person's substance use is really important. Those young people who have been using substances on a daily basis for six weeks or longer are more likely to have become dependent and are at most risk of withdrawal.

It can be difficult to assess the past level of substance use as a young person may under or over estimate their substance use. Do your best to get an accurate report of their use over the last year. Establish how much they use each day, how many days they use in a week and how much of the year they have used in this pattern for.

The longer a young person has been using substances on a daily basis, the higher the risk of withdrawal. Young people will usually have to have used alcohol for over six months to develop significant addiction however dependence on opiates, cannabis and amphetamines can develop after a month or so of use.

When assessing the risk of withdrawal the most useful things to ask about include:

- The amount of substance they have been using in the last few months. This includes how much on each occasion of use and the frequency of use.
- Whether they have successfully stopped using substances in the past.
- Whether they have experienced withdrawal symptoms on stopping in the past.
- Whether they have any medical problems, especially a history of epilepsy or fits.

Some young people are aware of their dependence on a substance and will say they are 'addicted' or 'hooked'. Useful screening questions include,

- 'Has your substance use increased over recent weeks/months?'
- 'Sometimes when people use alcohol or drugs they notice that they feel bad when they stop using. Is this something that worries you?'
- 'Do you become unwell when you stop using a substance? What happens to you? Do your symptoms improve/stop when you use the substance again?'

Questionnaires may be useful in assessing the severity of substance related problems. Those reporting a significant number of problems are more likely to have serious substance use problems and dependence. The Substance and Choices Scale (SACS) is a free and valid questionnaire that is easily accessible from the internet – see www.sacsinfo.com. Instructions about how to use the SACS are available on the website.

In forensic settings it is important that screening for substance use and dependence takes place in a way that is not self-incriminating.

Withdrawal symptoms

Young people who stop using substances may have an unpleasant 'withdrawal syndrome' in the days after stopping the drug. A withdrawal syndrome usually lasts 7 – 10 days although this differs depending on the substance. As a rule symptoms of withdrawal are at their worst at between 2 – 4 days after stopping a substance and then gradually decrease in severity from that point.

Common symptoms of withdrawal from alcohol and or drugs include...

Psychological symptoms such as

- *Agitation, irritability*
- *Moodiness, mood swings or feeling low in mood*
- *Anxiety and worries*
- *Restlessness and inability to sleep*
- *Difficulty concentrating and fidgetiness*
- *Tiredness and feeling low in energy*

- *Craving (hanging out) or strong urges to use*

Physical symptoms such as

- *Sweating, goosebumps, feeling hot or cold*
- *Cold or flu symptoms like runny nose and sneezing*
- *Loss of appetite, feeling sick in the stomach, vomiting, stomach cramps*
- *Aches and pains*
- *Feeling shaky and shivery*
- *Increased heart rate*
- *Headache insomnia*

Young people in withdrawal will complain of psychological symptoms more often than physical symptoms.

4. STRATEGIES TO HELP YOUNG PEOPLE 'DETOX'

Management of withdrawal

The most important aspect of managing a young person who is experiencing withdrawal is a calm and supportive environment. Having an understanding of which physical and psychological symptoms may occur and helping the young person cope with these is important.

In general the following environmental strategies are useful:

- Ensure the environment is free from substances and will not be visited by people who have or use substances.
- Ensure the environment is free from 'cues' or reminders about using substances. For example pictures of drugs make it harder for people to resist cravings. Visits from drug using associates will be counterproductive.
- Have activities readily available to help alleviate boredom and distract the young person at times they are craving (i.e. DVD's, books, games)
- If possible provide access to a quiet room, separate from other people that the young person can go to be alone if required.
- A comfortable ambient temperature, neither too hot nor too cold.
- Ensure there is plenty of fluid and a variety of healthy foods available.

Although some young people may 'detox' alone, in general the chances of a young person withdrawing successfully are increased if they have personal support:

- A concerned non-using carer/family member or friend needs to be on hand to support and reassure the person.
- It is important that those looking after the young person do not have high expectations of what can be achieved whilst they are detoxifying.
- An understanding of withdrawal symptoms and the difficulties associated with coping these and drug and alcohol cravings, is helpful.
- Relaxation exercises can be helpful if anxiety is present - deep breathing, muscle relaxation and relaxation music.
- A holiday or time away from their usual environment and social sphere is likely to be useful.

In addition keep the following things in mind

- Ensure carers/family know how to access medical support if required, especially after hours.

In medical settings (i.e. a hospital ward) monitoring of heart rate, respiratory rate, temperature and blood pressure can be done to keep track on the severity of the withdrawal reaction. Standardised withdrawal rating scales such as the Clinical Institute Withdrawal Assessment for Alcohol *Revised* (CIWA-AR) or the Short Opiate Withdrawal Scale (SOWS) may be useful in inpatient settings where trained nursing staff are available.

Practical strategies and 'over the counter' or non-prescription medication that can be helpful for specific symptoms

Disturbed Sleep

- Reduce coffee, tea, cola and energy drinks during the day and have none after 2 pm
- Eat 3 meals a day and avoid heavy, spicy meals late at night
- Avoid napping during the day and keep to regular bed and wake times
- Exercise regularly (in the day, not after 6 pm)
- Use relaxation techniques
- Avoid doing things (i.e. tough phone calls) that might upset you before going to sleep
- Have a bath in the evening
- Some people find melatonin helps with re-setting their sleep-wake cycle
- Taking sleeping pills (such as Zopiclone) should be considered very carefully as these medications (benzodiazepines) are addictive in themselves. They should not be prescribed for any more than 5 days, if at all.

Sweating/ hot and cold flushes

- Have regular showers or baths
- Paracetamol - take as directed on the packet

Muscle Cramps and Aches

- Have a bath
- Use a heat rub/ wheat bag
- Do gentle exercise e.g. walking
- Massage
- Paracetamol – take as directed on the packet
- Ibuprofen – take as directed on the packet

Poor Appetite

- Eat small meals and snack often
- Avoid heavy, greasy, sweet or rich foods
- Drink 6- 8 glasses of water a day
- Try a nutritional supplement drink e.g. Complan
- Multivitamins may be helpful if the young person has not been eating well for some weeks

Constipation/ Diarrhoea

- Drink plenty of fluids - 6 - 8 glasses of water a day
- Eat regular meals
- A high fibre diet
- For severe constipation eat fresh fruit, prunes or kiwifruit
- For severe diarrhoea try loperamide (Imodium) – take as directed on the packet

Nausea/ Vomiting

- Eat small meals and snacks often
- Drink plenty of water
- If vomiting, stop eating solid food and try small sips of liquid, or sucking an ice cube. Try a small amount of food once you have kept fluids down for a few hours
- Rehydration/sports/isotonic drinks such as 'Powerade'
- Avoid citrus and caffeine on an empty stomach
- If vomiting persists please see a GP as medication such as metaclopramide may be required.

Anxiety/Restlessness

- Use relaxation tapes
- Reduce caffeine intake
- Have a bath
- Do some gentle exercise

Cravings

- Cravings are intense thoughts and feelings compelling a young person to use again that are extremely difficult to resist. Young people, who by virtue of their developmental stage think less about future consequences and can be more impulsive than adults, can find coping with cravings very difficult indeed.
- Cravings will pass. Help the young person develop strategies to get through the most intense times.
- Remove 'cues' or reminders of use as these intensify craving.
- Remind the young person that although cravings may be really bad at first, they get easier to deal with the longer you go without using.
- Keep busy, use distractions like watching a dvd, exercising or dancing cooking or baking and then eating, cleaning, listening to music, playing games, go for a walk, talk to family or friends.
- When craving, a young person's thoughts often end up as an internal debate about the pro and cons of using. Even thinking about using will intensify craving (it is a cue of sorts) so rather than considering whether to use or not at length, suggest your young person puts off deciding for an hour. In this hour use distraction to take the young person's mind off things.
- Focus on what is happening at the moment and take each hour and day as it comes. Thinking too far ahead can often be overwhelming and counterproductive.
- Reward your young person each time they get through a period of craving. It is a definite achievement, as overcoming addiction is an extremely difficult thing to do.

What happens after withdrawal?

If a young person successfully gets through withdrawal, remaining abstinent from drugs and alcohol can be an even bigger challenge. In some cases (such as when a young person has entered a youth justice residential facility), the environment may support continued abstinence and this should be seen as an opportunity to engage the young person into an AOD treatment programme.

- In most cases support from an outpatient alcohol and drug service will be the best way to cement change and prevent relapse into substance use.
- Attending adolescent orientated AA meetings can be very useful for some young people
- In those young people who have severe addiction a residential treatment program will offer the best chance of long term success.
- For abstinent young people with previously severe alcohol dependence who struggling with ongoing cravings there are now medications which can help with these. These medications can be obtained from doctors at the local Community Alcohol and Drug Services (CADS).

In many cases the young person will not be returning to a helpful environment and will be at risk of relapse into substance use. Be mindful that relapsing back to using substances is very common and shouldn't be seen as failure, nor a reason to stop seeking or engaging in treatment. Even short periods of sobriety are better than none and successful periods of abstinence are a springboard for more lasting change.

- Remain optimistic that things will improve in the future and that the young person will build on the changes they have made. And make sure you convey your optimism to the young person as this will increase their belief that they can overcome addiction. Pessimism is unhelpful and usually contagious.
- Remember that associating with substance using peers and other factors described above in the section about 'cravings' will increase the likelihood of relapse.

5. MENTAL HEALTH ISSUES IN SUBSTANCE WITHDRAWAL

Mental health symptoms that may occur during or around the time of 'detox'

Young people with addiction will often suffer from mental health symptoms or problems. The mental health issues may have led to the addiction in the first place, they may be a result of the addiction or they may co-occur coincidentally. To further complicate matters, many symptoms of withdrawal are similar to mental health symptoms and it can be difficult (for young people and carers) to have a clear idea of what is causing what.

Although there is no question that supporting young people to detoxify and remain substance free will lead to an improvement in their mental health, young people in 'detox' are likely to initially feel worse than usual, especially in the early stages of withdrawal. These young people will need to be informed about and prepared for this, and appropriate support put in place to manage a possible deterioration in their mental health.

Finally, although treatment of mental health problems will be optimised by being substance free, if a young person is unwilling or unable to 'detox', this should not affect their eligibility for appropriate mental health care. The days of mental health care being contingent on abstinence from substances are gone and best practice is to provide *integrated* care. Integrated care for young people with co-existing mental health and substance use problems is about treating both disorders as best as possible at the same time. A good rule of thumb is to make sure the main goal of treatment is the minimisation of harm.

Anxiety

Everyone suffers from anxiety or worries from time to time as anxiety is a normal emotion that is often beneficial and helps protect us or improve our performance. Difficulties with anxiety occur when the anxiety is persistent, overwhelming, associated with avoidance (of everyday things or activities) or when the anxiety is out of proportion to the factors causing it.

Anxiety occurs relatively commonly in people going through detoxification and is usually a direct effect of substance withdrawal. As a rule people will feel most anxious when their withdrawal symptoms are at a peak (usually day 2 or 4) and their anxiety levels will come down slowly after this. Most of the time anxiety can be managed with education (that this is something expected with substance withdrawal) reassurance and the strategies listed above. If anxiety does not subside with the withdrawal reaction, or if it triggers low mood or suicidal thinking, then seek help.

Depression and low mood

During and following withdrawal young people are likely to experience up and down moods. Although low mood, poor sleep and fatigue may persist for weeks as part of the withdrawal process, if people experience a prolonged period of low mood lasting

over weeks they may have (or be developing) a depressive illness. Depression can occur in anyone and as well as feeling low and unhappy, young people will also complain that they find it hard to enjoy things, that they feel tired, that their sleep is disrupted or that they find it hard to concentrate. These symptoms can also be caused by taking drugs and it can be difficult to tell what is causing which symptom.

Note that depressed young people are less likely to appear obviously unhappy than adults and because of this depression is often missed. In most cases it will be worth seeking advice from a GP or mental health service if you have concerns about depression. Young people with depression often feel suicidal i.e. they have thoughts about harming themselves or dying. If your young person has suicidal thinking then seek help urgently.

Psychotic symptoms and paranoia

Psychotic symptoms can occur in young people taking different types of drugs but are most often associated with taking cannabis, hallucinogenic drugs or amphetamines. Psychotic symptoms are more likely to occur when intoxicated by these drugs however it can also occur in those withdrawing from amphetamines. A very rare complication of alcohol withdrawal is delirium tremens (“the DTs”), which includes psychotic symptoms. This is extremely rare in young people.

The most common psychotic symptoms seen in drug abuse are paranoid ideation and hallucinations. Paranoid ideation refers to when people lose touch with reality and believe (wrongly) that they are in danger, that people are out to get them or that things refer especially to them. Hallucinations are false perceptions, when people hear, see or feel things that aren't really there.

Psychotic symptoms are usually serious and expert help should be sought for anyone who is experiencing these. Often a young person will be aware that their beliefs/experiences are odd and not real: reassurance is helpful in these cases. When the young person is unable to be reassured and has lost any sense of what is real or what is not, this is a psychiatric emergency and carers need to seek urgent advice or assessment from a GP or local psychiatric emergency team. Likewise if the young person's strange beliefs have the potential to put themselves or others at risk then urgent help should be sought.

6. FURTHER CONSIDERATIONS FOR YOUNG PEOPLE IN 'DETOX'

Remember to consider nicotine addiction

Many young people who use or are addicted to alcohol or drugs may also be cigarette smokers and addicted to nicotine. It is very important to consider this when planning an alcohol or drug detoxification as nicotine addiction may impact on the success or otherwise of the detoxification. Nicotine is a very addictive substance and very difficult to give up. A young person who is trying to withdraw from other substances may be more prone to abandon the 'detox' if they are expected to withdraw from nicotine as well.

Nicotine replacement should be considered for those in a 'detox' environment that is non-smoking. A nicotine addicted young person who has access to nicotine replacement whilst in a non-smoking environment is likely to not only have more success withdrawing from other drugs but is also likely to respond to the programmes and rehabilitation available in the setting as they will experience less difficulties coping with nicotine withdrawal.

There is a well-documented withdrawal syndrome for nicotine dependence that involves physical and psychological symptoms. These symptoms may be confused with withdrawal symptoms from other drugs. The physical symptoms of nicotine addiction include flu-like symptoms such as sore throat, nasal congestion, coughing, and tightness in the chest. Other symptoms may be extreme fatigue and insomnia. Psychological symptoms include irritability, mood swings and extreme cravings.

Nicotine replacement

Nicotine replacement via nicotine patches or chewing gum is now recommended for all ages including teenagers. The harm from addiction to nicotine is almost entirely related to its mode of delivery (i.e. via cigarette smoking) thus even short periods of time taking nicotine replacement are preferable to smoking over that time. Nicotine replacement is now recommended for people as young as 12 years old (refer to <http://www.moh.govt.nz/moh.nsf/indexmh/nz-smoking-cessation-guidelines>) and parental permission is not required (although of course is preferred). More information and access to treatment for nicotine addiction is via Quitline ph 0800 778 778 or via the internet - <http://www.quit.org.nz/page/index.php>.

Substance withdrawal in Taitamariki Maori

Maori concepts of health and wellbeing can be easily described using the Te Whare Tapa Wha model, where wellbeing is seen as a combination of four aspects, like the four strong walls of a house. These aspects are whanau (connectedness and family), hinengaro (the mind), tinana (the physical being), and wairua (spiritual being). In supporting a Maori Rangatahi or Tamariki and whanau, these aspects need to be both considered and acted on.

The ideal situation is where a senior support person from the wider whanau can become involved in the 'detox' process to ensure that Maori practices of

whakawhanaungatanga are utilised. While recognising that these aspects of Tikanga Maori may sound rather traditional, practical experience shows that no matter where Maori Rangatahi and Tamariki are on the continuum of Maori identity they and their whanau find this approach helpful and feel respected when these approaches are offered. At the same time, accessing culturally appropriate services that can use whakawhanaungatanga to build connections with, and provide support to a whanau as the whanau experiences the process of 'detox' is vital.

Residential 'detox' settings need to include culturally appropriate supports and be able to cater for extended whanau members visiting and attending meetings with professionals working with their whanau member. If whanau are travelling from out of the area it is helpful if accommodation is provided for them. If whanau are not able to attend, frequent phone calls home to consult with key members of the whanau so that they are made aware as to what is happening with the Rangatahi are essential.

Karakia, Mihimihi, and Powhiri/whakatu should be part of a holistic treatment plan and Powhiri Poutama is a model that could be used & incorporated in the detoxification process if possible. Rangatahi and their whanau need to be consulted with as a collective and aspects of treatment planning should be discussed and negotiated with whanau. Educating the whanau around detoxification process & AOD use is essential to help them have a better understanding of what the Rangatahi is going through

Whatever the setting, it is important to have a senior Maori cultural advisor to provide cultural safety and ensure that the mana of the whanau is upheld. This is exemplified in the cultural competencies of mihi roto i Te Reo Rangatira, Manaakitanga and Karakia. Ideally a Kaumatua and Taurawhiri should be employed by the involved services to fulfil the role of mediator so that they are able to work alongside the whanau. Clinical staff should undertake training in working with Maori whanau.

Pacific young people and substance withdrawal

A Pacific approach to health is based on a holistic method of wellness that addresses physical, mental, family, spiritual and environmental issues. When supporting Pacific young people and their families the most important step is referring to, or consulting and collaborating with Pacific services or cultural advisors. This is recommended even if the young person doesn't specifically identify with his or her culture or they are dismissive or appear uninterested in it.

If access to appropriate cultural services is not possible then consult with the family themselves about how you can best support their young person in 'detox' in a manner that best fits with their cultural perspective. Connecting with families on their terms is key and if language is a barrier at all, access Pacific interpretation services early to make sure there is a shared understanding of the process of 'detox'/ withdrawal and substance addiction.

Clinical approaches utilising story telling and narrative approaches are a recommended way to impart information and support Pacific families through treatment. If residential facilities are being used make sure they cater for family visits: capacity for family members to sleepover is ideal.

Cultural interventions via massage, herbalist and access to Island food/nutrition are likely to enhance recovery as is access to Island music and singing which will help the young person and family to connect as well as assist with coping with withdrawal. Allowing families a time and place to pray and linking prayer into the young person's recovery is important and this might hopefully include access to spiritual healing through Matua or cultural advisors within the family/service.

Young people in criminal justice settings

Young people who have been previously using substances and enter criminal justice settings may go through withdrawal in the first few days of arrival. They (and staff) may not necessarily be aware of what is happening to them and so even if they don't complain of it, drug and alcohol withdrawal needs to be considered as a reason for any difficult behaviour observed in the early stages of an admission. Remember that young people may be conscious of incriminating themselves by admitting to substance use.

Although youth justice facilities are likely to have extensive assessment procedures and protocols, these often take place over the first few days of admission and as such may occur too late to identify potential substance withdrawal and for any useful interventions to take place. Screening for potential risk of withdrawal needs to occur on the day the young person arrives so that appropriate support can be put in place as soon as possible. Residential youth justice settings need to have capacity and flexibility to provide the kind of strategies detailed above for the young person in the first few days of arriving in the service. Provision of appropriate support over this time when young people are particularly vulnerable is likely to play dividends later on in terms of the young person's willingness to engage in programs later on.

7. SPECIFIC SUBSTANCE WITHDRAWAL SYNDROMES

Alcohol

Alcohol withdrawal is only likely to be problematic in young people who have been using on a daily basis for months. Young people who are heavily addicted to alcohol (are not able to go without a drink for more than 24 hours) or have epilepsy or a history of seizures need to see a GP prior to attempting to 'detox' for consideration of whether support with medication is required.

Withdrawal symptoms begin after 24 hours and peak on day 3 or 4. Symptoms include restlessness, headache, poor appetite, nausea, diarrhoea, sweating, tremor and shaking, an increased heart rate and increased urine output. Young people will feel anxious and agitated and crave alcohol. They may have problems sleeping or have nightmares. After a week things will settle down however people may feel down, irritable and tired.

In most cases supportive treatment including drinking plenty of water and taking mild pain relief (e.g. paracetamol) is sufficient however sometimes medication is required to lessen the withdrawal reaction and may increase the chance of a successful 'detox'. All young people with a history of heavy alcohol use should be given B vitamins in particular thiamine during their 'detox'. This should be intramuscularly if there are serious concerns about malnourishment.

Occasionally in very heavy alcohol users the withdrawal may progress to delirium tremens or DT's. DT's includes high temperature, severe confusion (don't know their name, where they are and/or time/date/year), paranoia (strange beliefs, appear frightened,) and hallucinations (seeing or hearing things that aren't there or believing something is touching their skin.) DT's are very rare in young people however if this occurs immediate medical support is required (call an ambulance).

Use of medication in alcohol detoxification

To access medication for alcohol withdrawal, at the very least a general practitioner will need to be involved however it is recommended that an AOD service or specialist is also consulted. If physiological dependence is felt to be severe enough to warrant medication support then the young person should really be assessed and managed by an AOD service in the first instance.

A decision to use benzodiazepines such as diazepam for alcohol withdrawal needs to be considered carefully as many young people in these settings will be experiencing major anxiety independent of, but exacerbated by the substance withdrawal syndrome. Experiencing the rapid and effective relief from anxiety from benzodiazepines may increase the risk of benzodiazepine seeking and problematic use in the future.

The general idea of prescribing for alcohol withdrawal is to give enough medication (in divided doses through the day) over the first 24 hours to keep the young person

comfortable (not severely troubled by withdrawal symptoms) and then to gradually decrease the daily amount over the next 4 to 6 days. Young people generally manage to withdraw safely from alcohol without requiring high doses of diazepam that one might prescribe for alcohol dependent adults. It would be unusual for a young person to require more than 20 mg diazepam on the first day of their detox and if doses above this are felt to be required then expert advice should be sought.

Close support is likely to be required and advice from the local alcohol and drug service should always be sought. It must be stated clearly to the young person and their carers, that combining alcohol and benzodiazepines or anti-seizure medication is considered very dangerous and can cause overdose. If you believe there is a risk of this occurring (drinking while on medication) then it is probably safer to not prescribe at that time and seek advice from local detoxification/CADS services.

Cannabis

Cannabis or marijuana is also known as weed, pot, buds or grass. The cannabis withdrawal syndrome is usually mild and is mostly experienced as psychological (rather than physical symptoms). Psychological symptoms include anxiety, irritability, sleep disturbance and moodiness. Strong cravings to use can occur. It may occasionally be severe with perspiration, tremors and nausea and less commonly, vomiting diarrhoea, a loss of appetite, twitches and shakes and feeling restless. The withdrawal syndrome comes on gradually but the worst symptoms should be over after a week. It may however persist for 3 or 4 weeks in very heavy daily users. However young people will continue to feel funny and crave for up to 4 weeks after stopping. Young people who have been using cannabis regularly from an early age can find stopping cannabis very difficult and are likely to need intensive support.

Amphetamines

Amphetamines include a number of types of stimulants most commonly known as speed, 'p', ice and ritalin. Similar effects may be experienced by heavy users of benzylpiperazines (BZP, party pills). If a young person suddenly stops after a 'run' of using amphetamines, they will experience a 'crash' in the first 1-3 days. The symptoms of the 'crash' include exhaustion, increased sleep and low mood.

After this initial stage they will stop sleeping so much and will experience increased appetite, irritability, anxiety and strong cravings to use over the next days to weeks. People also suffer mood swings and poor concentration, disturbed sleep and aches and pains in their body. They will feel very low in energy and run down. Weird thoughts, such as feeling paranoid that people are out to get you or hearing and seeing things that aren't there, may occur, especially in those young people who experience similar things when intoxicated by amphetamines. Very occasionally the nature of the paranoia places others at risk, especially if the young person believes they are acting to protect themselves. These psychotic symptoms usually settle over 10 days or so but irritability and mood swings may persist. Fatigue, feeling low, being unable to enjoy things like you used to and intense craving to use can persist for months after stopping use but things will eventually return to normal. Clinical

depression can emerge after stopping amphetamines and mental health support may be required.

Withdrawing from speed is not dangerous and the symptoms that people suffer are not indicative of serious physical problems rather they reflect the body recovering from being on a prolonged 'adrenalin high' that has been artificially induced (by amphetamine). The body needs time to replace the energy and natural chemicals that have been burned up over the time that they have been using and thus forcing someone who is in the 'crash' stage to be active is likely to be unhelpful. Amphetamine withdrawal can usually be managed with reassurance, a safe environment and over the counter medications however in some cases small doses of benzodiazepines have been used to support withdrawal in the early stages.

Ecstasy

Also known as 'E's or eckies, ecstasy is seldom dependence forming and few people become 'addicted' to it. After stopping ecstasy the young person may experience a few days of feeling low in mood and tired. They may report sleep disturbance and may want to take ecstasy again, if only to help alleviate their post-use 'blues'.

Opiates

Opiates include morphine, heroin, methadone ('done), oxycodone, codeine and some other painkilling medication. Users are likely to be familiar with the opiate withdrawal reaction as they will have been through the early stages of it numerous times. Opiate withdrawal can start within 12 hours of last using and symptoms kick in properly after 24 hours. Withdrawal is worst on day 3 to 4 (except for methadone where the worst symptom may not occur until later).

Opiate withdrawal resembles a flu-like illness and people present pale and restless with dilated pupils, hot and cold sweats, body aches, sweating and goosebumps (cold turkey). They may have watering eyes and nose, and stomach cramps with diarrhoea and vomiting. The person is likely to feel anxious and experience severe cravings for the drug thus a supportive environment is important. The worst of the 'detox' is over in 4 - 5 days (2 weeks for methadone) although people will not begin to feel back to normal for a couple of weeks. Cravings to use again are usually very strong for some weeks after 'detox' and people will most likely need some kind of professional support to remain drug free after a 'detox'. A protracted abstinence syndrome with low mood, sleep disturbance and fatigue may last 3-4 months and the young person should be encouraged to see that this is a part of detox which will pass, rather than being "life after drugs".

Opiate users need to know that after going through 'detox' their tolerance (the amount of drug they need to use to get an effect) will decrease significantly. They should take less than their usual amount of drug if they decide to use again. If they use their usual amount following detoxification they are at risk of dying from overdose. An overdose of opiates depresses breathing and can lead to unconsciousness and death.

Solvents

Young people can develop tolerance to, and dependence on inhalants. Withdrawal symptoms are varied and everyone is likely to have a different experience of withdrawal. Often people will report bad headaches like a severe hangover, abdominal pains and nausea. They can experience shaking, trembling, tiredness, muscle cramps and severe cravings in the first few days. Sometimes hallucinations or visual disturbances can occur.

After a week anxiety, depression, aggressive outbursts, trouble concentrating and irritability often occur. These symptoms can occur within a few hours or days of stopping use and can last several weeks. Withdrawal from inhalants is unlikely to require medical assistance as symptoms are not life threatening, however medical advice should be sought if the young person is pregnant, has a history of seizures, has an underlying medical condition, or extreme physical discomfort.

Benzodiazepines

Benzodiazepines include most sleeping pills and other prescribed anti-anxiety medications like diazepam. Dependence to these agents can develop if they are used regularly for longer than 3 weeks. If dependence has only been established for a few weeks then 'detox' is likely to be straightforward however if the user has used for a number of months then medical support is likely to be required. A withdrawal syndrome similar to alcohol withdrawal can develop with a high risk of seizures and serious psychological symptoms. A benzodiazepine 'detox' can only be safely done very slowly over weeks to months with close medical monitoring. Seek medical support if you have any concerns that benzodiazepine use has been regular and sustained in your young person.

GHB

Also known as G, GBH, fantasy, liquid ecstasy, liquid e. G is most commonly consumed orally. It is a central nervous system depressant (sedative) so common effects are euphoria, increased confidence and drowsiness. Combination with alcohol or other CNS depressants increase the risk of overdose and possible death.

GHB use can lead to dependency. People can quickly find they need a little 'G' to feel normal. An accurate assessment is required as to the frequency, amount and duration of use. Due to GHB's short duration of action and rapid elimination, symptoms of withdrawal appear rapidly – up to 6 hrs after last dose. These symptoms include: anxiety, tachycardia, tremor, risk of seizures. Heavy G use requires an inpatient medical 'detox' and is managed with Diazepam with close medical observation.

8. FURTHER INFORMATION ABOUT ADDICTION AND MENTAL HEALTH SERVICES

Often the best place to first seek support and advice is via the local GP. Most areas will have after hours GP services which will often offer the most responsive service for urgent problems.

The Alcohol and Drug Helpline (0800 787 797) is available from 10am to 10pm. They can offer support/information for the young person and their family/carers going through withdrawal. Up to date information about AOD treatment services in your area is available on their website www.adanz.org.nz.

Most DHB's in New Zealand will have a Community Alcohol and Drug Service (CADS) which can be accessed for support around substance withdrawal. For young people under 18 years support may sometimes be available via the local Child and Adolescent Mental Health Service (CAMHS) who may have youth AOD workers within their service.

In terms of after hours support most regions will have Crisis and Assessment Teams (CATT) who will be able to provide phone advice and assess the need for more urgent psychiatric input.

The following internet links provide access to useful information about addiction and substances of abuse.

www.alcohol.org.nz ALAC (For information on alcohol relevant to a NZ context)

www.nzdf.org.nz New Zealand Drug Foundation (Information on policy, law, interventions, drugs)

www.adf.org.au Australian Drug Foundation (A wide range of A & D relevant information)

www.urge.co.nz URGE – Whakamanawa (A youth site focused site re drugs, sex, and other issues)

www.waitematadhb.govt.nz/sorted SORTED – Party Drug Info Guide (Auckland CADS harm reduction information)

www.quit.co.nz NZ smoking cessation website

www.drugabuse.gov US government drug information site

www.kinatrust.org.nz NZ family inclusive practice website

9. FURTHER READING AND KEY REFERENCES

Adolescent Health Research Group. A health profile of New Zealand youth who attend secondary school. *The New Zealand Medical Journal* 2003; **116**: U380.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision*. Washington DC: American Psychiatric Association, 2000.

Bukstein O. G. Practice Parameters for the Assessment and Treatment of Children and Adolescents with Substance Use Disorders. *J. Am. Acad. Child Adolesc. Psychiatry* 1997; **36**: 140S-156S.

Saunders J. B., Jenner M., Jenner L., Yang J. *Clinical Protocols for Detoxification in General Practice and Community Settings*. Queensland Government, 2002.

Chen C. Y., Anthony J. C. Possible age-associated bias in reporting of clinical features of drug dependence: Epidemiological evidence on adolescent-onset marijuana use. *Addiction* 2003; **98**: 71-82.

Christie G., Marsh R., Sheridan J., Wheeler A., Suaalii-Sauni T., Black S., Butler R. The Substances and Choices Scale (SACS) - the development and testing of a new alcohol and other drug screening and outcome measurement instrument for young people. *Addiction* 2007; **102**: 1390.

Chung T., Martin C. S., Winters K. C., Langenbucher J. W., Cornelius J. R. Limitations in the Assessment of DSM-IV Cannabis Tolerance as an indicator of Dependence in Adolescents. *Experimental and Clinical Psychopharmacology* 2004; **12**: 136-146.

Clark D. B., Bukstein OG Psychopathology in Adolescent Alcohol Abuse and Dependence. *Alcohol Health and Research World* 1998; **22**: 117-121.

Coffey C., Carlin J. B., Degenhardt L., Lynskey M., Sanci L., Patton G. C. Cannabis dependence in young adults: an Australian population study. *Addiction* 2002; **97**: 187-194.

Deas D., Riggs P., Langenbucher J., Goldman M., Brown S. Adolescents are not adults: Developmental considerations in alcohol users. *Alcohol Clinical and Experimental Research* 2000; **24**: 232-237.

Deas D., Thomas S. E. An Overview of Controlled Studies of Adolescent Substance Abuse Treatment. *Am J Addict* 2001; **10**: 178-189.

Gray K. M. Marijuana Use, Withdrawal, and Craving in Adolescents. *Psychiatric Times* 2007; **24**.

Graham AW, Schultz TK, Mayo-Smith MF, Ries RK, Wilford BB, eds. *Principles of Addiction Medicine*. 3rd ed. Chevy Chase, Maryland: American Society of Addiction Medicine, Inc; 2003.

Harrison P. A., Fulkerson J. A., Beebe T. J. Multiple substance use among adolescent physical and sexual abuse victims. *Child Abuse and Neglect* 1997; **21**: 529-539.

Lewinsohn P. M., Rohde P., Seeley J. R. Alcohol consumption in high school adolescents: frequency of use and dimensional structure of associated problems. *Addiction* 1996; **91**: 375-390.

Liddle H. A., Rowe C. L. *Adolescent Substance Abuse*. New York: Cambridge University Press, 2006.

Martin C. S., Kaczynski N., Maisto S. A., Bukstein O. M., Moss H. B. Patterns of DSM-IV alcohol abuse and dependence symptoms in adolescent drinkers. *Journal of Studies on Alcohol* 1995; **56**: 672-679.

Mayo-Smith, M. (1997). Pharmacological management of alcohol withdrawal. A meta-analysis and evidence-based practice guidelines. *JAMA*, 278, 144-151

Saraceno D. B. (Ed) *Neuroscience of psychoactive substance use and dependence*. Geneva, Switzerland: World Health Organisation, 2004.

Schuckit, M. A. *Drug and Alcohol Abuse: A Clinical Guide to Diagnosis and Treatment*. Kluwer Academic/Plenum Publishers: New York, 2000.

Stewart D. G., Brown S. A. Withdrawal and dependency symptoms among adolescent alcohol and drug abusers. *Addiction* 1995; **90**: 627-635.

Teesson M., Baillie A., Lynskey M., Manor B., Degenhardt L. Substance use, dependence and treatment seeking in the United States and Australia: a cross national comparison. *Drug and Alcohol Dependence* 2006; **81**: 149-55.

Tims F. M., Dennis M. L., Buchan B. J., Diamond G., Funk R., Brantley L. B. Characteristics and problems of 600 adolescent cannabis abusers in outpatient treatment. *Addiction* 2002; **97(Supl 1)**: 46-57.18.

Weinberg Adolescent Substance Abuse: A Review of the past 10 years. *J. Am. Acad. Child Adolesc. Psychiatry* 1998; **37**.

Wells J. E., Baxter J., Schaff D. Substance use disorders in Te Rau Hinengaro: The New Zealand Mental Health Survey. Wellington: Alcohol Advisory Council of New Zealand, 2007.

Winters K. C. Screening and Assessing Adolescents For Substance Use Disorders: Treatment Improvement Protocol (TIP) Series 31. Rockville: U.S. Department of Health and Human Services, 1999.

Winters K. C. Treating adolescents with substance use disorders: An overview of practice issues and treatment outcome. *Substance Abuse* 1999; **20**: 203-25.

Winters K. C., Latimer W., Stinchfield R. D. The DSM-IV criteria for adolescent alcohol and cannabis use disorders. *Journal of Studies on Alcohol* 1999; **60**: 337-344.