health

Department:
Health
REPUBLIC OF SOUTH AFRICA

# National Guidelines on Detoxification for Alcohol and Other Drugs (AOD).

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# Foreword



**NATIONAL MINISTER OF HEALTH:**

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# STATEMENT BY THE DIRECTOR – GENERAL: HEALTH.



**MS MP MATSOSO**

**DIRECTOR GENERAL: HEALTH**

**DATE:**

# Acknowledgements

## INTRODUCTION

Substance abuse in South Africa places an immense health and socio-economic burden on society. As in the rest of the world it reaches across social, racial, cultural, language, religious and gender barriers. Research has highlighted the link between substance abuse and various health and social problems, in particular:

- intentional and non-intentional injuries and premature death;
- dysfunctional family life;
- risky sexual behaviour and infectious diseases, such as tuberculosis, hepatitis C (HCV) and sexually transmitted infections including HIV/AIDS;
- cancers;
- mental health problems such as increased risk of anxiety, depression and some psychoses;
- antenatal and neonatal complications such as fetal alcohol spectrum disorders (FASD);
- child abuse and neglect;
- crime (particularly crimes of violence, especially family violence; property
- crimes and crimes associated with the supply of or trafficking in substances);
- absenteeism and school failure; and
- loss of productivity, unemployment and other negative economic effects.

As part of the intersectoral responses on substance abuse related problems the Inter Ministerial Committee on Substance Abuse Plan prescribed that the National Department of Health develop guidelines for detoxification for use in health facilities.

The treatment of users who are under the influence or experiencing withdrawal from substance-use disorders require an understanding of how substance abuse disorders develop. A comprehensive assessment would be required on the user, which includes biological, social and psychological aspects.

There is a wide range of evidence based interventions that include among others pharmacotherapy, social interventions, cognitive behavior interventions, counseling and others.

The guidelines provide standardized terminology that is used in substance use interventions, diagnostic criteria and specific interventions based on variety of the different substances used.

## 2. Definition and Goals of Detoxification

Detoxification is a process through which a person who is physically and/or psychologically dependent on alcohol, illegal drugs, prescription medications, or a combination of these drugs is withdrawn from the drug or drugs of dependence. It is the management of withdrawal syndrome.

Detoxification implies a clearing of toxins (Alling, 1992). It also includes the period of time during which the body's physiology is adjusting to the absence of drugs and alcohol.

Detoxification is not a treatment for drug seeking behaviour. Rather, it is a family of procedures for alleviating the short-term symptoms of withdrawal from drug dependence (Gerstein and Harwood, 1990).

Detoxification must include "a period of psychological readjustment designed to prepare the patient to take the next step in ongoing treatment" (Czechowicz). It is therefore one part of a comprehensive treatment strategy.

Since most persons who have a substance abuse disorder are addicted to Detoxification often involves more than one substance (poly-drug abuse).

## 3. DSM Diagnostic Criteria

Substance (psycho-active-substance) refers to a drug (including alcohol and nicotine from tobacco) that is mood altering. Nicotine is addictive thereby producing behavior (mind-set) of dependency/addiction to the substance and withdrawal symptoms are usually present should the individual stop smoking without assistance.

A variety of substance related disorders might result from exposure to alcohol and mood-altering drugs. The disorders below are listed by the American Psychiatry Association below:

# 4. Substance Use and Addictive Disorders

## 4.1 Substance Intoxication

## 4.2 Substance Withdrawal

The following are three criteria for determining substance abuse use withdrawal:

4.2.1 The development of a substance-specific syndrome due to the cessation of (or reduction in) substance use that has been heavy or prolonged.

4.2.2 The substance –specific syndrome causes clinically significant distress or impairment in social, occupational or other important areas of functioning.

4.2.3 The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

**4.3 Substance –Induced Psychotic Disorder**

**4.4 Substance –Induced Bipolar Disorder**

**4.5 Substance –Induced Depressive Disorder**

**4.6 Substance –Induced Anxiety Disorder**

**4.7 Substance –Induced Obsessive-Compulsive or Related Disorder**

**4.8 Substance –Induced Dissociative Disorders**

**4.9 Substance- Induced Sleep-Wake Disorder**

**4.10 Substance –Induced Sexual Dysfunction**

**4.11 Substance –Induced Delirium**

**4.12 Substance –Induced Dementia**

**4.13 Substance- Induced Persisting Amnestic Disorder**

**4.14. Mild Neurocognitive Disorders Associated with Substance Use**

**4.15 Major Neurocognitive Disorders Associated with Substance Use**

## 5. Substance Use Disorders

**5.1 Substance Dependence**: Substance dependency is a syndrome characterized by a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following occurring at any time in the same 12 month period:

**5.2 Tolerance**, as defined by either of the following:

a) A need for markedly increased amounts of the substance to achieve intoxication or desired effect, or

b) Markedly diminished effect with continued use of the same amount of the substance.

**5.2 Withdrawa**l, as manifested by either of the following:

a) The characteristic withdrawal syndrome for the substance, or

b) The same (or a closely related substance) is used to relieve or avoid withdrawal symptoms.

c) The substance is taken in larger amounts than was intended.

d) There is a persistent desire or unsuccessful efforts to cut down or control substance use.

e) A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.

f) Important social, occupational, or recreational activities are given up or reduced because of substance use.

g) The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have caused or exacerbated by the substance.

**Specify if**

**With physiological dependence** item 1 or 2 is present, or

**Without physiological dependence**

## 6. Substance Abuse

Characterized by:

6.1 A maladaptive pattern of substance use in turn leading to significant use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12 month period:

a) A recurrent substance use resulting in a failure to fulfill major role obligations at work, home or school; or

b) recurrent substance use in situations in which it is physically hazardous; or

c) recurrent substance –related legal problems; or

d) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance

## 7. Drug Categories

**7.1 Opiods** that include naturally occurring derivatives of the opium plant and synthetically produced morphine like substances. e.g. codeine, pethidine, morphine withdrawal is distressing but not usually life -threatening

**7.2 Alcohol and sedative** Hypnotics are usually used as anxiolytics or to facilitate sleep. e.g. benzodiazepines withdrawal can produce severe seizures and other life-threatening disruption in physiology of the major organs such as brain, heart and kidneys.

**7.3 Stimulants** produce increased arousal accompanied by euphoria and sense of confidence e.g. cocaine and methamphetamine withdrawal is characterized by depression and suicidal risk.

**7.3.1** All drugs produce a common withdrawal syndrome; however, the withdrawal severity and time span varies with each particular drug.

**7.3.2** Neuroadaptation occurs more rapidly with relapses after detoxification because the brain cells are restored to levels that are not exact as before dependency.

## 8. Length of Detoxification

Relates to the time period that the patient takes medication and/or the duration of withdrawal signs and symptoms. Typical lengths of treatment are discussed under the chapter on clinical protocols.

## 9. Immediate goals of Detoxification

a) To provide safe withdrawal from the drugs of dependence and enable the patient to be drug free. Medication interactions, treatment settings and severity of withdrawals are to be considered.

b) To provide withdrawal that is humane and protects the patient's dignity. Appropriate staff selection and training, cultural sensitivity, supportive environment, patient confidentiality and appropriate medication if necessary are imperative.

c) To prepare the patient for ongoing treatment of his/her AOD dependence. Patients may develop therapeutic relationships with staff that can use the opportunity to offer information, counselling and motivate them for long-term treatment.

## 10. Repeated Detoxification

a) Patients must be afforded the opportunity for repeated detoxification if necessary.

b) Each therapeutic event must be used to further motivate patient and develop insight into his/her condition.

c) The health care provider must see AOD addiction as a chronic relapsing illness and must resist moral judgment.

d) Relapse prevention education is essential.

## 11. Post Detoxification Treatment

a) Many patients enter detoxification treatment centres after committing crimes of abuse, violence, aggression or social misbehaviour, after birth of Fetal Alcohol Syndrome baby and are therefore forced by family, society, work environment and/or judicial system. These categories of patients need strong motivation to abstain from drugs after treatment.

b) Health care providers must use the opportunity to motivate patient for long term treatment and abstinence after detoxification.

c) Families must be engaged in treatment as early as possible by referral to appropriately trained therapists to assist them to support patient/client after detoxification treatment.

## 12. Effects of AOD Exposure and Withdrawal

a) Tolerance and Physical Dependence occurs because of continued exposure of AOD to brain cells, which induce changes in functioning of brain neurons (neuroadaptation).

b) Drug withdrawal produces a withdrawal or abstinence syndrome. This follows a predictable time course and has predictable signs and symptoms. The signs and symptoms of withdrawal are usually the reverse of the direct pharmacological effects of the drug.

## 13. Advantages of Detoxification

a) **Crime:** the longer the patient is exposed to treatment and/or admitted to a rehabilitation care centre, the greater the reduction in criminal and violent behaviour.

b) **Alcohol/Drug use:** Usage is greatly reduced after treatment.

c) **Health care:** Hospitalisation is reduced and significant reduction in other health indicators.

## 14. Barriers to Detoxification

a) Managed care criteria are based on economic and not clinical grounds.

b) A skilled health care provider must comprehensively assess level of care, treatment programmes and facilities setting.

c) Failure to take into account patients' psychosocial environment in treatment planning.

d) Patients seek treatment for crisis management and may not recognize the need for ongoing treatment.

e) The intensity of withdrawal cannot always be predicted accurately.

## 15. Improving access to care for detoxification

a) Health care reform allows certain patients with medical insurance and the Prescribed Minimum Benefit for Detoxification and minimum of 21 days in-patient rehabilitation.

b) Need to create training/Board Examinations for Clinical Disciplines in Addiction Medicine.

c) In-service training and certification of health service providers e.g. nurses, social workers, addiction counselors and assistants.

d) To ensure access to care establishments, to referral networks and development of Public–Private initiatives.

e) Increase research in the neurobiology of addiction and implement appropriate findings.

## 16. Principles of Detoxification

a) Detoxification alone is rarely adequate treatment for alcohol and other drug (AOD) dependencies. The appropriate level of care must be a clinical decision based on the individual needs of the patient.

b) When using medication regimes or other detoxification procedures, only protocols of established safety and efficacy should be used in routine clinical practice.

c) Providers must advise patients of procedures, which have not been established as safe and effective. These must only be carried out in special circumstances with written permission.

d) During detoxification, providers must control patients' access to medication to the greatest extent possible. This includes alcohol.

e) Initiation of withdrawal should be individualized.

f) Many individuals may undergo detoxification more than once, and some do so many times.

g) Every means possible is used to ameliorate the patient's signs and symptoms. Medication is not the only component of treatment. Psychological support is extremely important. Patients should be active as soon as possible.

h) Patients should be linked with ongoing assistance and follow-up support therapy as soon as possible, such as peer group therapy, family therapy, individual counseling, 12-step programme and AOD recovery educational programme after the detoxification programme.

i) There are two general strategies for pharmacological management of withdrawal: (1) suppression of withdrawal by a cross –tolerant longer-acting medication, and (2) decreasing signs and symptoms of withdrawal by alteration of another neurophysiological process.

j) Proper nutritional support should be part of the ongoing assistance and follow-up support. Alcohol and drug abuse can induce nutritional problems, either directly by reducing food intake due to a lack of appetite or indirectly by depleting money needed for food.

## 17. Modifications for Special Populations

### 17.1 Pregnant and Breastfeeding Women

Opiod substitution therapy and good pre-natal care is generally associated with good fetal and maternal outcomes. Clonidine safety is not established in pregnancy. All pregnant and breastfeeding mothers should be advised of the potential risks of drugs that are excreted in breast milk. Therefore those mothers taking benzodiazepines, anti-depressants and anti-psychotic medication should not breast-feed.

Detoxification protocols prescribed by medical practitioners should be revised every 6 months.

### 17.2 Persons who are HIV positive

No alteration to the detoxification process is needed.

### 17.3 Persons with other medical conditions

#### *17.3.1 Brain injured patients at risk of seizures*

***Slower medication tapers should be*** used. Anti-convulsant medication dosages should be stabilized before sedative-hypnotic withdrawal begins.

***17.3.2 Patients with cardiac diseases*** require continued clinical assessments. Their conditions may be complicated by seizures or the physiological stress of withdrawal. Withdrawal must be slower than normal. Drug interactions must be noted.

***17.3.3 Patients with severe liver or renal disease*** can slow drug metabolism and therefore short acting medication and a slower taper need to be used. Clinicians need to take precautions against drug accumulation and over sedation.

***17.3.4 Patients on chronic pain treatment*** do not require detoxification from prescribed medicines unless they meet the criteria for opiate abuse or dependency.

### 17.4 Patients with psychiatric co morbidities

Psychiatric medication should continue unless they are abusing the prescribed medication or the psychiatric condition was caused by this patient's alcohol and drug use. Patients must be reassessed psychiatrically 2-3 weeks after detoxification. If patients decompensate then the medication for withdrawal can be increased or an anti-psychotic and/or anti-depressant can be added.

### 17.5 Adolescents

They respond more rapidly to treatment.

### 17.6 Older Persons

Drug interactions are common. Full medical history is crucial. Metabolism is slower and medical comorbidities are common. Dosages may have to be reduced. Detoxification to be undertaken in a medically managed or medically monitored facility.

### 17.7 Patients in Criminal Justice System

Patients incarcerated or in detention in holding cells or elsewhere must be assessed early for dependence on AOD as withdrawal from alcohol and drugs can be life – threatening.

Withdrawal from Opiods is not life threatening, but can be very difficult for the patient. Prison health care providers need special training in assessment and detoxification.

### 17.8 Patient Placement

#### 17.8.1 Patient placement is determined essentially by two important criteria

a) The patient's need should drive the selection of the most appropriate setting. The intensity of care required and the severity of withdrawal symptoms are primary indicators.

b) Environmental impediments, which are high risk for continued use, may require detoxification in a residential setting with a structured environment.

### 17.8.2 Inpatient setting offers the following advantages

a) Patient is in a protected environment where access to AOD is restricted.

b) Clinical observation and dose modification makes detoxification safer.

c) Detoxification is more rapid.

### 17.8 3 Outpatient setting offers the following advantages

a) Less expensive than inpatient setting.

b) The patient's life is not as disrupted as in in-patient setting.

c) The patient does not undergo the abrupt transition from a protected inpatient environment to the everyday home and work settings.

## 17.9 Emergency Departments

a) Must serve as the gateway to detoxification.

b) Can serve for case identification, assessment, initial detoxification, stabilization to prevent medical complications and treatment of overdose.

c) Serve as a best setting for early identification and treatment.

## 18. Management of Alcohol Intoxication and Withdrawal

### 18.1 Alcohol Intoxication

Clinical picture

| BLOOD ALCOHOL mg% | CLINICAL EFFECT |
|---|---|
| 20-99 | muscular inco-ordination,mood,personality changes |
| 100-199 | prolonged reaction time,ataxia,inco-ordinaton |
| 200-299 | v.obvious intoxication,nausea & vomiting ,ataxia |
| 300-399 | hypothemia,dysarthria,amnesia,stage 1 anesthesia |
| 400-799 | alcoholic coma |
| 600-800 | fatal.obtunded,decrease in respiration,heart rate/temp. |

**Management**

- Support of respiration and cardiovascular system as the first priority of treatment.
- Intravenous glucose and thiamine are crucial for patients with impaired consciousness. (Alternative intravenous infusion will be prescribed for patients with Diabetes Mellitus).
- Assess for ingestion of other drugs by taking full history of drug taking, depending on patient's level of consciousness.
- Gastric lavage/suction or emesis is not indicated unless patient ingested substantial amount in proceeding 30-60 minutes.
- Activated charcoal is not indicated unless other toxins are ingested.
- Elimination of alcohol is at a fixed rate of 20mg/dl/hour independent of time and concentration
- Agitation is best managed non-pharmacologically with support and reassurance
- Medical workup for potential detoxification/withdrawal after intoxication.

### 18.2 Alcohol Detoxification

Most alcohol-dependent individuals can be detoxified in a modified medical setting, provided assessment is comprehensive, medical backup is available, and staff know when to obtain a medical consultation. Patients can be detoxified in a hospital-based setting and may present with emergency treatment of an overdose. Duration is usually 3 to 5 days in hospital except for special circumstances of addicted neonates, severe sedative–hypnotic dependence, and concurrent medical or severe psychiatric problems. Patients who score higher than 20 in the Clinical Institute Withdrawal Assessment of Alcohol (CIWA-Ar) scale should be admitted to hospital.

Other options available for treatment include: residential setting, partial day care and ambulatory. Patients who are medically debilitated should detoxify more slowly. Length of detoxification is further influenced by severity of the dependency and patients overall health status.

### 18.3 DSM IV Diagnostic Criteria for Alcohol Withdrawal

a) Cessation of (reduction in) alcohol use that has been heavy and prolonged.

b) Two (or more) of the following, developing within several hours to a few days after Criterion A:

   i. autonomic hyperactivity (e.g. sweating or pulse >100)

   ii. increased hand tremor

   iii. insomnia

   iv. nausea and vomiting

   v. trans. visual/tactile/auditory hallucinations/illusions

   vi. psychomotor agitation

   vii. anxiety

viii. grandmal seizures

c) The symptoms in Criterion B cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

d) The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

**18.4 Signs and Symptoms of Acute Alcohol Abstinence Syndrome**

These may occur between 6 and 24 hours after the last drink. Patient may still have alcohol in the blood stream. Symptoms do not always follow from mild to severe in a predictable fashion. Some patients can present with severe granmal seizures initially. They usually begin between 8 to 24 hours after the patient's last drink and may occur before the blood alcohol level is zero. Hallucinations are more accusatory. Delirium tremens generally appears 72 to 96 hours after the last drink.

**Patient Assessment**

- Assess for the presence of medical and psychiatric problems
- Pertinent laboratory tests

Blood tests, Urine Tests, Liver Function Test

(Full Blood Count; Urea & Electrolytes; Blood Glucose; Toxicology; Magnesium; Calcium; Sexually Transmitted Infections; Electro-Cardio-Gram/Liver infection).

**18.5 General management**

It includes adequate fluid balance, correction of electrolyte balance, attend to nutritional needs, and add vitamin B Co and Thiamine 100mg daily provide support and reassurance /beware of over-hydration in early withdrawal.

CIWA- Ar is commonly used to initially assess and for on-going monitoring. It takes between 2 and 5 minutes to administer and repeated every 1 or 2 hours until the CIWA-Ar is below 10

when most medication can be weaned off. 10-18 indicates moderate withdrawal; >18 indicate severe withdrawal. High scores are predictive of development of seizures and delirium.

### 18.6 Pharmacological management

#### 18.6.1 Benzodiazepine

Benzodiazepines such as diazepam, clonazepam, oxazepam or lorazepam are considered effective tools in ameliorating signs and symptoms of alcohol withdrawal.

Benzodiazepines can be given when the health practitioners identify withdrawal symptoms (***Symptom-triggered Medication Regimens) and*** if health practitioners are well trained to monitor patients with relevant scales. Benzodiazepines can also be given according to ***Structured medical Regimens (drug treatment protocols specific for institutions)*** when the health practitioners are well trained to assess drug withdrawal symptoms (e.g. in medical wards) or when patient is at risk of decompensation (e.g. Cardiac Arrhythmias).

#### 18.6.2 Carbamazepine

It is without toxicity when used in 5 to 7 day regimes. It is a well documented anti-convulsant. It can be used as an adjunct to benzodiazepines in patients with a history of withdrawal seizures, mood disorders or prominent benzodiazepine withdrawal.

#### 18.6.3 Beta-adrenergic blockers

Ameliorate physical symptoms. Can cause delirium in rare cases. Can mask assessment of withdrawal.

#### 18.6.4 Haloperidol

Haloperidol has less effect on seizure threshold than the phenothiazines and is used for agitation and in conjunction with benzodiazepines.

#### 18.6.5 Thiamine

In Wernicke's disease and Wernicke Kosakoff's syndrome that is a neurological emergency, Thiamine 100mg daily oral or imi or IV in 1-liter dextrose.

Wernicke Kosakoff's syndrome: Alcohol amnesia (loss of memory) syndrome associated with chronic alcoholism with loss of thiamine and niacin; characterized by disorientation, impaired thinking, confabulations, sensory motor deficit/peripheral neuropathy, and irregular eye movements, muscular in coordination.

## 18.7 Specific Medication Treatment Regimes

### *18.7.1 Monitoring*

Monitor the patient every 4 to 8 hours using the CIWA-Ar until the score has been below 8-10 for 24 hours; use additional assessments as needed.

### *18.7.2 Symptom-triggered Medication Regimens*

To maintain mild sedation:

Administer one of the following medications 2-6 hourly when the CIWA-Ar is >8 to 10:

a) Diazepam 5-20 mg orally

b) Oxazepam 15-60 mg (liver and renal disease) orally

c) Lorazepam 1-4 mg (liver and renal disease) imi or sublingual

Repeat the CIWA-Ar one hour after every dose to assess the need for further medication.

### *18.7.3 Structured Medication Regimen*

The physician may feel that the development of even mild to moderate withdrawal should be prevented in certain patients e.g. patients with a myocardial infarction and may therefore order medication to be given on a predetermined schedule. One of the following regimes can be used:

a) Diazepam 10mg every 6 hours for four doses, then 5 mg every 6 hours for 8 doses, if required.

b) Lorazepam 2mg every 6 hours for 4 doses, then 1mg every 6 hours for 8 doses, if required.

It is important that patients receiving medication on a predetermined schedule is monitored closely and that additional medication be provided should the doses prove inadequate.

***18.7.4 Agitation*** If a patient is displaying increasing agitation and /or hallucinations that have not responded to benzodiazepines alone, one of the following medications can be used:

Haloperidol 0,5mg – 5mg imi or IV.

Given the risk of respiratory depression, the patient must be closely monitored, with equipment for respiratory support readily available. (Other benzodiazepines or phenothiazenes may be substituted at equivalent dose.)

**18.8 Management of Patient after Seizures**

a) Not all seizures are due to withdrawal.

b) Admit to hospital for observation and evaluation.

c) Seizures are often multiple and therefore prevent further episodes with rapid acting benzodiazepines followed by long-acting benzodiazepines for 24 - 48 hours thereafter.

**18.9 Management of Patient with Delirium**

a) Emergency Treatment Approach.

b) Use as much Diazepam as necessary to achieve sedation. (peak reached in 5 minutes with iv Diazepam)

c) If oral Diazepam is not adequate, add haloperidol 0,5mg – 5mg hereby avoiding IV if necessary.

# 19. Management of Sedative – Hypnotic Intoxication and Withdrawal

## 19.1 Intoxication and Overdose

### 19.1.1 Clinical features

a) Mild to moderate: slurred speech, ataxia and inco-ordination

b) Severe: stupor and coma

### 19.1.2 Management

a) Other sedative hypnotics: use a large bore oral gastric tube while the airway is protected.

b) Slurry of 1.0g/kg activated charcoal, at 0, 5 to1, 0 g/kg every 2 to 4 hours may be helpful.

## 19.2 Withdrawal

### Clinical features

a) Seizures, depression, delirium, psychosis.

b) Rebound symptoms, symptom recurrence, pseudo withdrawal and true withdrawal.

c) Tremor, muscle-twitching, nausea & vomiting, impaired concentration, restlessness/anorexia/blurredision/irritability/insomnia/weakness/sweating.

d) Tachycardia hypertension/ hyperreflexia / mydriasis/ diaphoresis.

### 19.2.2 Management.

Determine the reason why the patient is seeking for treatment of sedative hypnotic use; determine the level of motivation for rehabilitation.

a) Take a sedative hypnotic history

b) History of other psychoactive drug use including alcohol consumption.

c) Obtain a psychiatric history

d) Take a family history including family physical] and mental assessment and history of addictions.

e) Take a current and past medical history

f) Take a psychosocial history

g) Conduct laboratory urine drug screen

h) Arrive at a differential diagnosis

i) Determine appropriate setting for detoxification

j) Obtain patients informed consent

k) Initiate detoxification

Use the tapering method of drug detoxification, where the dose is decreased every week by the equivalent of diazepam 5mg.

The tapering method is a preferred method for outpatient unless social circumstances are non-supportive.

**19.3 Outpatient Detoxification**

a) Calculate the equivalent dose of diazepam (5-20mg) [10mg diazepam = 1 mg alprazolam =2 mg clonazepam = 2 mg lorazepam] using a substitution conversion chart, to the sedative or hypnotic drug that was abused.

b) Provide the substituted drug in a divided dose

c) For the first week provide steady state drug dosing with clonazepam or diazepam and provide the substituted drug PRN

d) Stabilize the patient on an adequate substitution dose without the need for PRN in 5-7 days.

e) Gradually reduce the dose of diazepam every two weeks to 2.5mg per day.

**19.4 Inpatient Detoxification**

For polydrug users, high dose users, co morbid patients:

19.4.1 Signs and symptoms of withdrawal are treated with 5-20mg diazepam PRN for 2-7 days

19.4.2 Hourly monitoring of vital signs to assure adequate dosing and determination of the stabilization dose.

19.4.3 To calculate the stabilization doze: take the total doze taken for 2 days and divide by 2 (e.g. diazepam 20mg 2x daily for 2days = 80mg; then divide 80mg by 2 = 40mg). The stabilization dose is Diazepam 40mg.

19.4.4 The stabilization dose (diazepam 4omg) is given in divided doses over 24 hours, e.g. every 3-4 hours for patients with high tolerance.

19.4.5 A gradual taper is then initiated as in outpatient. Patients can be transferred to an intensive daily medically managed outpatient programme.

# 20. Management of Opiod Intoxication and Withdrawal

## 20.1 Intoxication

### 20.1.1 Diagnosis of opiod overdose

*History:*

- Polydrug abuse
- Use multiple information sources

*Findings on Physical Examination*

- Central nervous system. Depression
- Respiratory depression
- Myosis
- Needle tracks

### 20.1.2 Management of Opiod overdose

*General Supportive Management*

- Assess and clear airway
- Support ventilation
- Assess and support cardiac function
- Give intravenous fluids e.g. glucose and electrolytes

*Specific Pharmacologic Therapy*

- Naloxone hydrochloride: 0,4mg to 0,8 mg intravenously initially, repeated when necessary after taking vital data for any alarming signs (e.g. cardiac or blood pressure abnormalities.

## 20.2 Opiod Withdrawal

### 20.2.1 Clinical Picture

- Depends on the half life of the drug, between 4-36 hours after last use
- Severity depends on dose and duration of use

*Vital Signs*
- Tachycardia
- Hypertension
- highly elevated temperature

*Central Nervous System*
- Restlessness
- Insomnia
- Craving
- Yawning

*Eyes*
- Papillary dilation
- Lacrimation

*Nose*
- Rhinorrhoea

*Skin*
- Piloerection

*Gastrointestinal*
- Nausea and vomiting
- Diarrhoea.

- Heroin withdrawal may begin 4 hours after last use, peak at 36-72 hours and last for 14 days

### 20.1.2 Management of Opiod Withdrawal

- General supportive measures
- Assess for co-morbid medical and psychiatric diagnosis
- Assess social support system
- Provide a safe environment and nutrition
- Reassure that symptoms will be taken seriously

## 20.3 Pharmacological Treatment of Opiod Withdrawal

Methadone (agonist): long half-life, 10mg initial dose, more if symptoms persist. Maintain during 2nd and 3rd day and slowly taper by 10-15% per day.

**Day 1**

Only if clinical signs of withdrawal are present:

Methadone, oral, 10mg (=25ml).

If symptoms are still present after 1 hour, give another 5-10mg

If symptoms are still present after 1 hour, give a repeated dose of 5-10mg.

The initial dose to suppress withdrawal symptoms may be repeated after 12 hours. The total 24-hour dose should rarely be more than 30mg.

**Day 2**

Repeat total dose of day 1 as a single or 2 divided doses.

**Day 3 onwards**

Decrease by 5mg/day to a total of 10mg. Thereafter reduce by 2mg/day.

The withdrawal regimen may be shortened if the patient's withdrawal symptoms allow it.

# 21. Management of Stimulant, Hallucinogen, Marijuana and Phencyclidine Intoxication and Withdrawal

## 21.1 Stimulant Intoxication

### 21.1.1 Medical Complication of Cocaine/Stimulant Intoxication.

- Papillary dilation; sudden headache; bruxism; picking; stroking.
- Increased respiratory rate and depth; possible dyspnoea; pulmonary oedema; respiratory failure
- Pulse to increase 30-50%, Blood Pressure, will usually increase 15-20%.skin pallor, possible circulatory failure, tachycardia, myocardial infarction, and arrhythmia.
- Tremor, hyperreflexia, twitching of small muscles, tics,

Cold-sweating, flushing, pre-convulsive movements, seizures, paralysis of medullary centres, cerebral oedema

- Nausea and vomiting
- Possible renal failure and incontinence
- Mild to extreme hyperthermia
- Possible hepatic insufficiency

### 21.1.2 Symptoms and Treatment of Cocaine Withdrawal

| PHASE | TIME COURSE | SYMPTOM | TREATMENT |
|---|---|---|---|
| CRASH | right after binge | stimulant craving | assess neurological and physical status<br>take urine and blood samples for drug testing |
| initial crash | | intense dysphoria-depression,anxiety agitation | obtain history of AOD and psychiatric disorders |
| middle crash | 1-4 hours after binge | craving replaced by desire for sleep | close observation,precautions against suicide |
| | | dysphoria may self medicate with drugs | delay clinical evaluation until after crash |
| late crash | lasts 3-4 days | hypersomnia<br>increased appetite | 3-4 days in quiet room to recover and sleep as much as needed |
| WITHDRAWAL | | | |
| honeymoon phase | lasts 12 hrs- 4 days | normalisation of sleep | evaluate for AOD use and other pathologies. |
| | | fairly normal mood | pharmacotherapy for stimulant withdrawal not yet been established |
| | | reduced cravings | observe for possible myocardial infarction. |
| dysphoria,craving | lasts 6-18 weeks | withdrawal symptoms depression,lethargy anhedonia<br>craving reemerges | initiate outpatient programme, individual and group therapy,urine monitoring |
| EXTINCTION | lasts months- years | gradual return of mood, interest in environment,excitement<br>gradual extinction of periodic craving | relapse prevention techniques and long term self help groups |

### 21.2 LSD

#### 21.2.1 Intoxication

a) Papillary dilation

b) Pulmonary mucosal irritation, bronchodilation

c) Elevated BP and heart rate

Increase in reflexes, muscle tremors, convulsions, muscle weakness, seizures, flushing and chills

a) Occasional nausea and vomiting

b) Uterine contraction, urinary retention

c) Elevated temperature to possible hyperthermia

d) Elevated free fatty acids.

#### 21.2.2 Medical Management

a) Support and reassurance in quiet room

b) Possible benzodiazepine e.g. IM Lorazepam 2mg hourly PRN

c) Possible haloperidol 5-10mg orally or 2 mg IM

#### 21.2.3 Withdrawal

No evidence of clinical withdrawal syndrome

### 21.3 MDMA

#### 21.3.1 Intoxication

a) Bruxism, headache, trismus

b) Hypertension progressing to hypotension, palpitations, disseminated intravascular coagulation

c) Tremor, tight jaw muscles, hypertonicity of body

d) Nausea, decreased appetite

e) Renal failure from overdose

f) Possible malignant hyperthermia

g) Sweating, rhabdomylosis from overdose

### 21.3.2 Medical Management

a) Intravenous fluids.

b) Control raised Temperature.

c) Support and reassurance in quiet room

d) Possible Benzodiazepine e.g. IM diazepam 2mg hourly PRN

### 21.3.3 Withdrawal

No evidence of withdrawal syndrome

### 21.4 Phencyclidine (PCP)

Chronic use of PCP can cause toxic psychosis that takes days or weeks to clear.

PCP does not have a withdrawal syndrome.

### 21.5 Inhalants / Solvents

Physical dependency is possible with hydrocarbons, including thinners, glue, paint and gasoline.

Withdrawal is similar to alcohol withdrawal.

### 21.6 Polydrug use

Addicts rarely use one drug.

a) Alcohol and stimulant: treat alcohol

b) Alcohol and benzodiazepine: treat alcohol

c) Cocaine and benzodiazepine: treat cocaine withdrawal

d) Cocaine and opiate: treat opiate

e) Cocaine and amphetamine: no detoxification protocol known

f) Opiate and Barbiturates: barbiturate detoxification first and heroin converted to Methadone and then withdrawn.

## 22. The Importance of Cultural Competence of Staff

Detoxification protocols may be used effectively with patients of all races, cultures and ethnic groups. However treatment components and procedures should be reviewed to ensure that they are culturally sensitive and relevant.

a) Diversity of counselors should reflect the surrounding communities.

b) Special training for cultural appropriateness; attitudes / terminology

c) Language appropriateness

d) Material must be user friendly.

e) Sensitive to cultural differences in response to authority

f) Each patient should be individually assessed as there is diversity within cultural groups.

## Annexure A.

# 23. C.I.W.A Scoring For Clinical Monitoring OF Alcohol Withdrawal

### 23.1 Symptom-triggered therapy.

Using the CIWA-Ar, nurses are trained to recognize signs and symptoms of alcohol withdrawal and to give a benzodiazepine to their patients only when signs and symptoms of alcohol withdrawal appear. Studies have demonstrated that appropriate training of nurses in the application of the CIWA-Ar dramatically reduces the number of patients who receive symptom-triggered medication (from 75 percent to 13 percent)(Wartenberg et al., 1990).

### 23.2 Loading dose.

Staff administers a slowly metabolized benzodiazepine for only the first day of treatment (Sellers et al., 1983). Patients in moderate-to-severe withdrawal receive 20 mg of diazepam every 1 to 2 hours until they show significant clinical improvement (such as a CIWA-Ar score of 10 or less) or become sedated. A 1985 study by Devenyi and Harrison indicates that "oral diazepam loading alone may be sufficient to prevent withdrawal seizures in patients who have had them previously and who have no other reason for having seizures" (Devenyi and Harrison, 1995). A randomized, double-blind controlled study conducted in an inpatient Veterans Administration hospital (Saitz et al., 1994) compared fixed-dose and symptom-triggered therapy and found that patients "treated with symptom-triggered therapy completed their treatment courses sooner and required less medication than patients treated using the standard fixed-schedule approach." Specifically, they received less benzodiazepine and received treatment for a shorter period of time (9 hours vs. 68 hours). This indicates that symptom-triggered therapy is an approach that could individualize and improve the management of alcohol withdrawal.

Score using the following 10 criteria. If more than 25, the withdrawal is severe and the aim should be to medicate to get the score to less than 10 after two x eight-hour assessments.

**Addiction Research Foundation Clinical Institute Withdrawal Assessment-Alcohol :( CIWA-Ar)**

This scale is not copyrighted and may be used freely.

**Patient:** _____ **Date: /___/___/___ Time: ___ :** _____

(24 hour clock, midnight = 00:00) **total CIWA score**_____

| **NAUSEA AND VOMITING** | **TACTICLE DISTURBANCES** |
|---|---|
| Ask "Do you feel sick to your stomach? Have you vomited? "<br>Observation. 0 no nausea and no vomiting<br>1 mild nausea with no vomiting<br>2<br>3<br>4 intermittent nausea with dry heaves<br>5<br>6<br>7 constant nausea, frequent dry heaves and vomiting. | Ask, "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?"<br>Observation.<br>0 none<br>1 mild itching, pins and needles, burning or numbness<br>2 mild itching, pins and needles, burning or numbness<br>3 moderate itching, pins and needles, burning or numbness<br>4 moderately severe hallucinations<br>5 severe hallucinations<br>6 extremely severe hallucinations<br>7 continuous hallucinations |
| **TREMOR** | **AUDITORY DISTURBANCES** |
| Arms extended and fingers spread apart.<br>Observation.<br>0 no tremor | Ask "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know |

| | |
|---|---|
| 1 not visible, but can be felt fingertip to fingertip<br>2<br>3<br>4 moderate, with patient's arms extended<br>5<br>6<br>7 severe, even with arms not extended | are not there?"<br>Observation.<br>0 not present<br>1 very mild harshness or ability to frighten<br>2 mild harshness or ability to frighten<br>3 moderate harshness or ability to frighten<br>4 moderately severe hallucinations<br>5 severe hallucinations<br>6 extremely severe hallucinations<br>7 continuous hallucinations. |
| **PAROSYSMAL SWEATS**<br>Observation.<br>0 no sweat visible<br>1 barely perceptible sweating, palms moist<br>2<br>3<br>4 beads of sweat obvious on forehead<br>5<br>6<br>7 drenching sweats | **VISUAL DISTURBANCES**<br>Ask, "Does the light appear to be too bright? Is its colour different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?"<br>Observation.<br>0 not present<br>1 very mild sensitivity<br>2 mild sensitivity<br>3 moderate sensitivity<br>4 moderately severe hallucinations<br>5 severe hallucinations<br>6 extremely severe hallucinations<br>7 continuous hallucinations |
| **ANXIETY**--Ask "Do you feel nervous?"<br>Observation.<br>0 no anxiety, at ease | **HEADACHE, FULLNESS IN HEAD**<br>Ask "Does your head feel different? Does it feel like there is a band around your head? "<br>Do not rate for dizziness or light-headedness. Otherwise, rate severity. |

| | |
|---|---|
| 1 mildly anxious<br>2<br>3<br>4 moderately anxious, or guarded, so anxiety is inferred<br>5<br>6<br>7 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions. | 0 not present<br>1 very mild<br>2 mild<br>3 moderate<br>4 moderately severe<br>5 severe<br>6 very severe<br>7 extremely severe |
| **AGITATION**--<br>+Observation.<br>0 normal activity<br>1 somewhat more than normal activity<br>2 moderately fidgety and restless<br>3 paces back and forth during most of the interview, or constantly thrashes about | **ORIENTATION AND CLOUDING OF SENSORIUM**--Ask, "What day is this? Where are you? Who am I?"<br>0 oriented and can do serial additions<br>1 cannot do serial additions or is uncertain about date<br>2 disoriented for date by no more than 2 calendar days<br>3 disoriented for date by more than 2 calendar days<br>4 disoriented for place and/or person |
| | |