GUIDELINES FOR THE MANAGEMENT

OF

PSYCHOACTIVE SUBSTANCE INTOXICATION

&

WITHDRAWAL

IN

KWA ZULU NATAL

Table of Contents

MANAGEMENT OF SUBSTANCE USE DISORDERS (SUD):

General information:
The treatment of SUD begins with the medical stabilisation of the patient (dealing with intoxication, withdrawal and medical complications). Medical stabilisation is however not a sufficient intervention to ensure future sobriety. It needs to be followed by an intervention to prevent relapse back to substance use. Brief interventions may be used in cases of misuse or abuse. *(See brief interventions below)* Patients who fulfil criteria for dependence need a referral to a specialist addiction treatment service. This does not "cure" the patient, but provide tools and the support necessary to maintain sobriety. Relapses and lapses (short periods of relapse) may still happen and should be viewed as a learning opportunity. (*See flow diagram below for correct referral pathways.*)

Where and by whom should intoxication and withdrawal be managed?
Substance intoxication and withdrawal are medical problems and should be treated at an appropriate medical centre.

Clients who require detoxification prior to rehabilitation, must present themselves to their nearest community health centre, where they should be evaluated, physically examined and have appropriate medication prescribed or else, where indicated, have inpatient care (at the appropriate level) arranged.

THE FOLLOWING CLIENTS REQUIRE REFERRAL FOR INPATIENT DETOXIFICATION.
They should be managed by admission to a district or regional hospital, or a tertiary hospital (only if secondary level is not available).

- Severe alcohol dependence (extended history of continuous heavy drinking with high levels of tolerance or severe withdrawal symptoms on presentation e.g. evidence of marked autonomic over-activity)
- Past history of convulsions during detoxification
- Past history of Delirium Tremens
- Older age (>60 years)
- Pregnancy
- Significant medical co morbidity (e.g. liver disease, cardiac disease, severe infections etc.)
- Significant psychiatric co morbidity (e.g. psychosis, suicidal ideation)
- Lack of support at home, unless the patient is going to an inpatient rehabilitation facility where staff will administer medication
- Previous failed outpatient detoxification attempts, unless the patients is going to an inpatient rehabilitation facility where staff will administer medication
- Special arrangement apply for opioid detoxification – see opioid section

Other patients should be managed as an outpatient at primary care level. ***This is the responsibility of the clients' nearest community health centre (supported by district and regional hospitals*).**

Guidelines for outpatient/community withdrawals:

- Patients should have someone at home who is able to monitor and supervise the withdrawal process, especially with alcohol withdrawal.
- The treatment plan should be discussed with both the patient and the person providing supervision; it is helpful to write out the regime and keep a copy in the notes.
- Arrange for the patient to be seen daily where appropriate, especially initially.
- If the patient resumes drinking or drug use, the regime needs to be stopped.
- Ensure patient and carer has contact details so that they can contact the health facility if there are any problems.

SCREENING for Substance abuse/ dependence

CAGE and AUDIT are two instruments that can be used for rapid screening:
The AUDIT (Alcohol Use Disorders Identification Test) was developed as a screening instrument for hazardous and harmful alcohol consumption as part of a six-country World Health Organisation study of brief alcohol interventions. It measures alcohol consumption, drinking behavior and alcohol-related problems during the past year, and thus emphasises the detection of current disorders.

1. How often do you have a drink containing alcohol?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   (1 or 2 drinks, 0) (3 or 4 drinks, 1) (5 or 6 drinks, 2) (7 to 9 drinks, 3) (10 or more, 4)
3. How often do you have six or more drinks on one occasion?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
4. How often during the last year have you found that you were not able to stop drinking once you had started?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
5. How often during the last year have you failed to do what was normally expected from you because of drinking?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
7. How often during the last year have you had a feeling of guilt or remorse after drinking?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
   (Never, 0) (Monthly or less, 1) (Two to four times a month, 2) (Two to three times a week, 3) (Four or more times a week, 4)
9. Have you or someone else been injured as a result of your drinking?
   (No, 0) (Yes, but not in the last year, 2) (Yes, during the last year, 4)
10. Has a relative or friend, or a doctor or other health worker been concerned about your drinking, or suggested you cut down?
   (No, 0) (Yes, but not in the last year, 2) (Yes, during the last year, 4)

Scoring: The points awarded for each question range from 0 to 4. The total scores range from 0 to 40. The WHO has organized the scores into four "zones," each with a suggested clinical

response. It is emphasized that clinical judgment is required and must be factored in, especially when the client's score is not consistent with other evidence.

Recommended Interventions

Zone 1	0 - 7 points	Intervention: Alcohol education
Zone 2	8 - 15 points	Intervention: Simple advice
Zone 3	16 - 19 points	Intervention: Simple advice, plus brief counseling and continued monitoring
Zone 4	20 - 40 points	Intervention: Referral for diagnostic evaluation and treatment

Sensitivity and Specificity

	% those with score who *have* alcohol abuse / dependence	% all alcoholics with this score	% all alcoholics with lower score
Score 12	97%	28%	72%
Score 8	90%	61%	39%
Score 2	25%	97%	3%

CAGE

The **CAGE** is used to detect current and past dependent drinkers.
The **CAGE (**Ewing, 1984) assesses four areas related to lifetime alcohol use.

- "Have you ever felt the need to **Cut** down on your drinking?"
- "Have you ever felt **Annoyed** by someone criticising your drinking?"
- "Have you ever felt **Guilty** about your drinking?"

"Have you ever felt the need for an **Eye-opener**?" (A drink in the morning to get you going.)

One or two positive responses is considered a positive test and warrants further assessment.

Brief interventions:

A brief intervention is a 5-10 minute intervention, aimed at providing the patient with information in a caring and empathic manner, in order to create ambivalence in the client about their substance habit. The idea is that this ambivalence may motivate change. It should be used by all health care workers as frequently as possible in all clients who are misusing substances or who are drink at risky levels. It may be used to motivate a client with substance

dependence for further treatment, but is not a sufficient intervention for substance dependence. These clients need referral to a local registered specialist substance treatment service

Bien used the acronym **FRAMES,** to define the essential elements of a brief intervention. (See table below.) In order to emphasize to the patient that the substance problem is viewed as serious by the health worker; it is advised that the client is given a follow-up appointment to discuss progress.

Brief interventions as described by Bien: (FRAMES)

Feedback	**Feedback** of personal risk or impairment	"Your liver is enlarged and not working properly and too much alcohol is the most likely cause for this."
Responsibility	Emphasis on personal **responsibility** for change	"I care about your wellbeing and therefore feel concerned about you, but it is really up to you to do something about this."
Advice	Clear **advice** to change	" I suggest that you stop drinking" "In order to drink in a safe and responsible manner, it is not advised that you take more than 2 drinks at any time."
Menu	A **menu** of alternative change options	"I would like to help and support you as far as possible. If you believe that you can stop by yourself, you can try on your own. If you don't manage or want help, I could arrange for you to see someone to talk more about this."
Empathy	Therapeutic **empathy** as a counselling style	Warm, caring, non-judgmental
Self-efficacy	Enhancement of patient **self-efficacy** or optimism	"I know that if you put you mind on something, you mean serious business. I believe that you can do this"

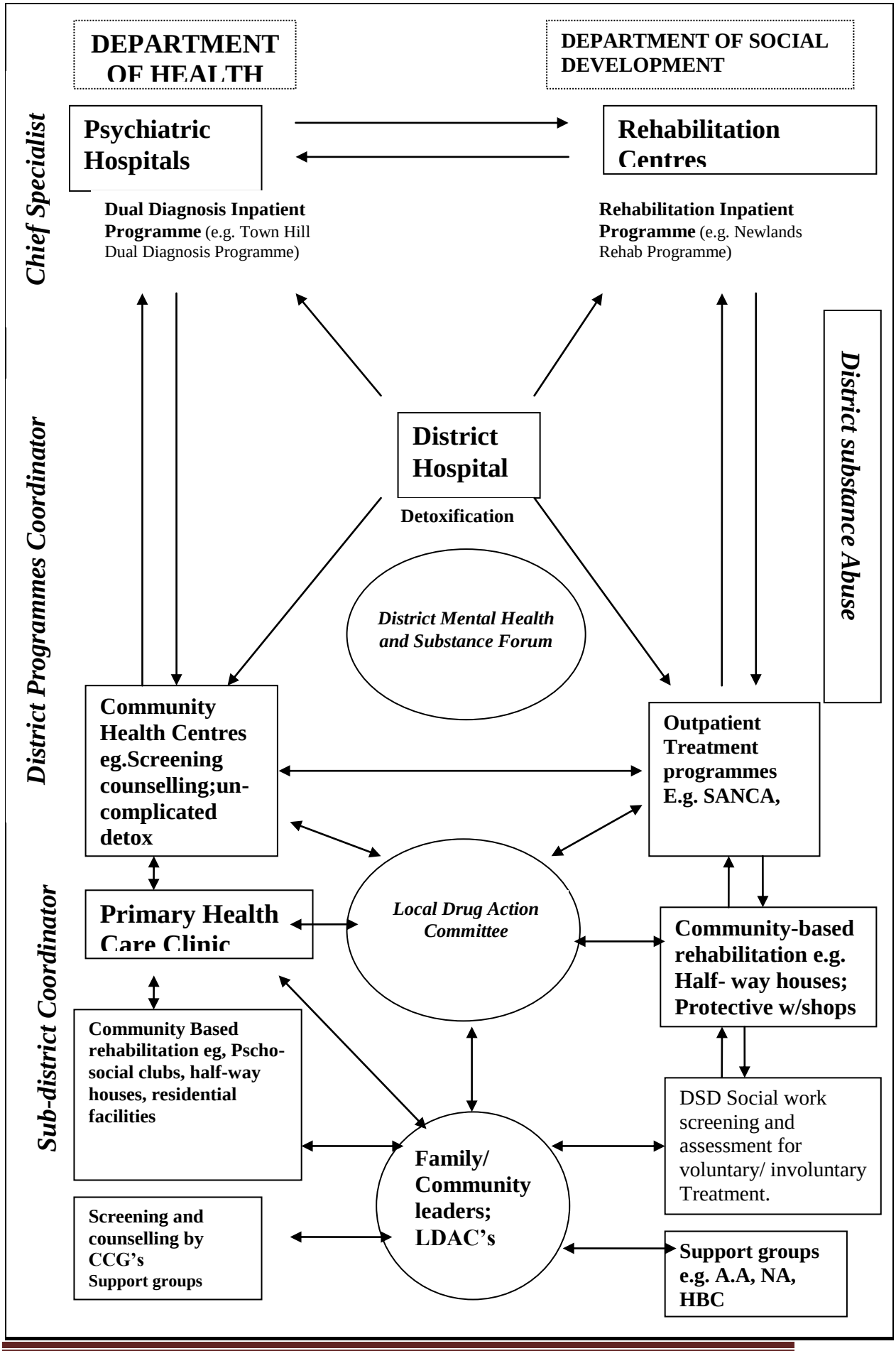
What if the client refuses help?

- **Committals:** Substance abusers who cause harm to themselves, their families or their environment, cause a public health risk or commit a criminal act to sustain drug dependence (and are not certifiable under the MHCA) but are unwilling to seek treatment, may be legally committed for treatment under Section 22 of the Prevention of Drug Dependency Act of 1992. The Prevention of and Treatment for Substance Abuse Act, Act 70 of 2008, that has been signed, but is not yet implemented, will also allow for involuntary substance treatment. This involuntary substance treatment is not the same as involuntary treatment under the Mental Health Care Act. It is a process that goes through the court and takes a long time (months). Advise the relative or friend of patient to first obtain an application at the magistrate's office. This application must then be handed in at their closest social service office. They will then arrange an appropriate rehabilitation program through court.
- **Detention under the Mental Health Care Act:** may only be used for patients who are in need of admission for a mental disorder. It generally does not apply to substance use disorders unless the patient also has a co-morbid mental disorder that it currently the primary focus of required care (e.g. depressed and suicidal, psychotic). Please discuss any such patient with the psychiatric registrar on call at the closest psychiatric hospital.

General Principals for Detoxification

a) Staff with an informed, non-punitive, non-judgmental and supportive approach to detoxification;
b) Assessment;
c) 24-hour professional nursing and easily accessible medical backup;
d) Standardized, official, best practice detoxification protocols;
e) Patient/client information and explanation (i.e. the likely course of withdrawal, length and intensity of symptoms, support and treatment to be offered and associated risks);
f) Patient/client participation and informed consent in detoxification decision making process;
g) a documented, individualized detoxification treatment plan (including referral if required) based on detoxification protocols, the patients'/clients' individual needs and preferences and the centre's capacities;
h) A safe, quiet and comfortable space for the detoxification process;
i) Adequate monitoring and supportive care;

Flow diagram of referral pathways


DEPARTMENT OF HEALTH
DEPARTMENT OF SOCIAL DEVELOPMENT
Chief Specialist
Psychiatric Hospitals
Rehabilitation Centres
Dual Diagnosis Inpatient Programme (e.g. Town Hill Dual Diagnosis Programme)
Rehabilitation Inpatient Programme (e.g. Newlands Rehab Programme)
District Programmes Coordinator
District Hospital
Detoxification
District substance Abuse
District Mental Health and Substance Forum
Community Health Centres eg.Screening counselling;un-complicated detox
Outpatient Treatment programmes E.g. SANCA,
Primary Health Care Clinic
Local Drug Action Committee
Community-based rehabilitation e.g. Half- way houses; Protective w/shops
Sub-district Coordinator
Community Based rehabilitation eg, Pscho-social clubs, half-way houses, residential facilities
DSD Social work screening and assessment for voluntary/ involuntary Treatment.
Family/ Community leaders; LDAC's
Screening and counselling by CCG's
Support groups
Support groups e.g. A.A, NA, HBC

ALCOHOL

How to manage clients with alcohol withdrawal

- Aim of alcohol detoxification is to prevent delirium tremens, seizures and death
- Determine whether complicated withdrawal could be anticipated: Severe alcohol dependence (extended history of continuous heavy drinking with high levels of tolerance or severe withdrawal symptoms on presentation e.g. evidence of marked autonomic over-activity , history of withdrawal delirium (DT's), convulsions, significant medical co-morbidity (e.g. serious cardiac disease, significant liver disease) ⇨ arrange admission to a district or regional hospital for these clients and use regime 3
- Uncomplicated withdrawal that may also require admission to hospital include withdrawal in the elderly (>60 y), pregnancy, significant psychiatric co morbidity (psychosis or suicidality), poor support at home, failed outpatient detoxification. ⇨ arrange admission to a district or regional hospital for these clients and use regime 1 or 2
- If uncomplicated withdrawal is anticipated ⇨ use regime 1 or 2

Uncomplicated (outpatient) withdrawal

- NB! Ethanol involves many serious effects on many organs and does not seem to protect against DT in established alcohol withdrawal and thus has NO place in modern medicine in the treatment of alcohol withdrawal.

- **Regime 1:**

Use this regime for uncomplicated withdrawal if
(1) Weight over 60kg and
(2) Between ages 18 and 60 years

Day 1-3: Diazepam 10 mg 8 hourly orally (with onset of withdrawal symptoms or at least 12 hours after last dose of alcohol)

Day 4-6*: Diazepam 5mg 8 hourly.
Day 7-9*: Diazepam 5mg 12 hourly
Day 10-12*: Diazepam 5mg nocte

*NB If withdrawal symptoms reappear, continue higher dose for a day or two and attempt reduction again.

Additionally: Thiamine 100mg IMI stat and orally daily x 30 days.
Vitamin B Co 2 tablets/day x 30 days
Vitamin C 200mg/day

(Continue Thiamine evidence of cognitive impairment and Thiamine, Vit B Co and Vitamin C if evidence of poor diet)

NOTE:

Review patients daily until stable. Additional diazepam (up to a **total maximum daily dose** of 60mg) may be required in the initial four days of withdrawal. If higher doses are required to control withdrawal symptoms, refer for inpatient detoxification. The regime should be adjusted if necessary. Caution is to be exercised with the use of Diazepam in those who have respiratory disease.

Regime 2:

Use for uncomplicated withdrawal when

(1) Weight below 60 kg

(2) Older than 60 years. (if younger than 18 years, see protocol for children and adolescents)

Day 1-3: Diazepam 5mg 8 hourly orally

Day 4-6: Diazepam 5mg 12 hourly orally

Day 7-9: Diazepam 5mg nocte orally

Additionally: Thiamine 100mg IMI stat and then orally daily x 30 days
Viatamin B Co 2 tablets/day x 30days
Vitamin C 200mg/day

NOTE:

Review patients daily until stable. Additional diazepam (up to a **total maximum daily dose** of 30mg) may be required in the initial four days of withdrawal. If higher doses are required to control withdrawal symptoms, refer for inpatient detoxification. The regime should be adjusted if necessary.

STANDARD TREATMENT GUIDELINES ANDESSENTIAL MEDICINES LIST FOR SOUTH AFRICA : APPROACH

Uncomplicated withdrawal

Alcohol detoxification may be managed on an outpatient basis in cases of uncomplicated withdrawal.

- Thiamine, oral, 100 mg daily for 14 days.

AND

- Diazepam, oral, 10 mg immediately.
- Then 5 mg 6 hourly for 3 days.
- Then 5 mg 12 hourly for 2 days.
- Then 5 mg daily for 2 days.
- Then stop.

Repeat after 4–8 hours as required to a maximum of 20 mg daily.

Once patient has responded and is able to take oral medication:

- Haloperidol, oral, 0.5–5 mg 4–8 hourly.

When administering glucose-containing

- Thiamine, oral/IM, 100 mg daily.

Complicated (inpatients) withdrawal: DELIRIUM TREMENS

- **Regime 3**

1. Admit to district or secondary hospital.
2. Fluids:
    - Rehydrate with care ONLY IF DEHYDRATED. Glucose drip WITH CARE (depletes thiamine); thus always give 100 mg thiamine IV per litre of IV fluid. (Risk of anaphylaxis)
    - Remember that during alcohol withdrawal, a state of inappropriate ADH secretion often exists, that may lead to over-hydration (check serum sodium).
3. **Thiamine:**
    - Minimum of parenteral Thiamine, 1
    -
    - 00mg IM or IV/day for 3-5 days in patients at high risk of Wernickes's encephalopathy.
    - In suspected or established Wernicke's, doses in excess of 500 mg parenteral Thiamine IV or IM should be given 3 times per day for 2 days, followed by 300 mg daily for 5 days, depending or response.
    - Facilities to treat anaphylaxis should be available
    - Note that a diagnosis of Wernicke's requires high index of suspicion as only 10% of patients have full triad and up to 80% of cases are only diagnosed at pot-mortem.
    - Follow parenteral thiamine, follow up with oral thiamine 100mg/day for 1 month, continue longer if evidence of cognitive impairment or poor diet.

3. Physical workup and investigations:
    - Detailed physical examination.
    - Urea and electrolytes, full blood count if indicated. (There is a high risk of co morbid infections and other pathology), LFT, B/S, CXR (if indicated). Skull –X-ray/CT scan for head injuries or unexplained seizures.

4. Medication:
    - **Diazepam** (Valium®) 5-10 mg 2-4 hourly orally (or slowly IV if unable to tolerate orally) PRN according to withdrawal symptoms. Calculate total dose required on day 1 and continue in 3 divided doses on days 2-3. Thereafter taper dose stepwise for a further 7-10 days. **EXTREME CAUTION** when using doses > 60mg/day. Avoid over sedation and be aware of respiratory suppression risk

    - **Lorazepam** (Ativan®) 1-2 mg IM if VERY restless. NOT MORE THAN 6 mg/day as an adjunct to diazepam; use with **CAUTION**. (Remember: 1mg Lorazepam = 5mg of Diazepam)
    - **Vitamin BCo strong** 2 tablets per day.
    - **Vitamin C** 200mg/day
    - **Folic acid** 5mg/day
    - **Multivitamins**
    - **Antipsychotics,** like **Haloperidol,** may be used in delirium tremens, but only if adequate benzodiazepines have been used with little effect.

5. Monitor physical condition throughout withdrawal.
    - Intensive treatment of concurrent physical disorders
    - Rest; sleep, good nutrition.
    - Nurse patient in a safe area and do not restrain. Impaired judgment and compromised safety may arise from the delirious state.

6. Do brief intervention only after withdrawal and refer to a social worker or registered outpatient specialist substance treatment program for further evaluation and treatment.

NOTE:
In the case of **severe liver damage**, diazepam should be used with caution. It is metabolised by the liver and may build up in the body, leading the respiratory depression and other complications. **Oxazepam** may then be a safer option.

ALTERNATIVE:
Carbamazepine has been used with results comparable to benzodiazepines. (Daily does of 800 mg in divided doses).

2. Managing intoxication

- Severe intoxication may be life threatening especially in the aged and malnourished and admission may be indicated. General supportive care is required.

STANDARD TREATMENT GUIDELINES ANDESSENTIAL MEDICINES LIST FOR SOUTH AFRICA : APPROACH

Benzodiazepines, e.g.:
Diazepam, slow IV, 10 mg (Not IM).
Repeat dose after 5–10 minutes if required.
If this dose is not sufficient, use 10 mg every 5–10 minutes for another 1–2 doses.
If patient is not yet sedated, continue with doses of 20 mg until this occurs. Usual initial dose is 10–20 mg, but up to 60 mg is occasionally required.
OR
Where intravenous access is not possible:

- Clonazepam, IM, 1–2 mg as a single dose.

If no response, repeat dose after 60 minutes. Maximum daily dose: 10 mg.
OR

- Lorazepam, IM, 1–4 mg every 30–60 minutes until patient is sedated.

Repeat doses hourly to maintain mild sedation. Maximum daily dose: 6 mg.
Once patient is sedated, i.e. light somnolence, maintain mild sedation with: Diazepam, oral, 5–20 mg 2–6 hourly.

CAUTION: Benzodiazepines, especially diazepam IV, can cause respiratory depression. Monitor patients closely as benzodiazepines can exacerbate an abnormal mental state or mask important neurological signs of deterioration. Neuroleptic medicines, i.e. medicines such as haloperidol, are associated with a reduced seizure threshold. Consider only for severe agitation and restlessness and give in combination with one of the sedative-hypnotic agents above.

Neuroleptic medicines, i.e. medicines such as haloperidol, are associated with a reduced seizure threshold. Consider only for severe agitation and restlessness and give in combination with one of the sedative-hypnotic agents above.

• Haloperidol, IV/IM, 0.5–5 mg.
Repeat after 4–8 hours as required to a maximum of 20 mg daily.

Once patient has responded and is able to take oral medication:
• Haloperidol, oral, 0.5–5 mg 4–8 hourly.

When administering glucose-containing fluids:
• Thiamine, oral/IM, 100 mg daily

CANNABIS:

1. General information:

- **Street names:** "Dagga", "grass", "boom", "groen goud", "Durban poison", "marijuana", "weed", "dope", "pot", "ganja", "herb", "bung".
- **Symptoms of intoxication:** Red eyes (vasodilatation), tachycardia, postural hypotension, motor in-coordination, heightened sense of awareness, impaired estimation of time and distance, impaired judgment, increased appetite, dry mouth, various psychological reactions, such as euphoria, anxiety, perceptual distortions/ hallucinations, paranoid thoughts, impaired short term memory and other abnormalities.
- **Severe intoxication:** Ataxia, sedation, slurred speech, poor concentration.
- **Chronic heavy use:** Associated with long-term impairment in performance, especially of attention, memory, ability to process complex information (Amotivational Syndrome).
- **Medical complications:** include acute cardiac incidents, bronchitis and emphysema, lung cancer, immunosuppressant.
- **Withdrawal:** Withdrawal is mild - agitation, tremor, insomnia few days only, "flashbacks" may occur.
- **Toxicology screen:** Urine

2. Outpatient detoxification regime:

No medication is generally required.

If anxiety and insomnia is uncomfortable and this discourages abstinence, give withdrawal medication.

Day 1:	Diazepam 5 mg 3x/d orally
Day 2:	Diazepam 5mg 2x/d orally
Day 3:	Diazepam 5mg at night orally

For severe withdrawal, this regime can be stretched over 5-7 days.

3. Management of common abnormal reactions

- **Panic and anxiety during intoxication:**
- Reassurance; supportive atmosphere; "talk down".
- At most Diazepam 5 – 10mg orally stat.

- **Psychotic reactions as a result of intoxication:**
- Patients mainly present with delusions of persecution, poor reality contact, afraid and reactive towards environment.
- Presents on day of smoking or within the first few days thereafter
- Requires supportive environment, may need admission.
- If restless and a management problem, use Lorazepem 1-2 mg orally or IM stat and if not effective Haloperidol 2,5 mg to 5 mg orally/IM stat. If symptoms persist, use Haloperidol 1.5mg daily orally. If psychosis does not remit in one week, refer to psychiatry.

4. How to manage clients with cannabis problems further:

All patients, in whom Cannabis use is diagnosed, should receive a brief intervention and should be referred to a social worker or a local registered outpatient specialist substance treatment program.

Only for intolerable withdrawal symptoms:

- Diazepam, oral, 5 mg as needed.

Maximum dose: 20 mg daily.

MANDRAX/ METHAQUALONE:

1. General information:

- **Street names:** "Mx", "Sproetjie", "buttons", "omo wit","henna", "pille", "whites", "witpyp", "mandies", "cremora", "Volkswagen", "Macarena", "cream", "gholfsticks", "doodies", "lizards", "germans", "flowers", "hits".
- **Symptoms of intoxication:** Mandrax initially causes feelings of relaxation and euphoria. The person feels less inhibited and "witty". It is a depressant and users may become drowsy and have impaired co-ordination and slurred speech. They may loose consciousness. (Street slang for this is "ert"). In many cases, users feel tired and may go to sleep for protracted periods. The user may have a dry mouth, reduced appetite and may have bloodshot, glazed or puffy eyes (especially if used with cannabis). Nausea, vomiting and stomach pains can also occur. The effects last for several hours. Some people will feel aggressive as the effects to start wear off. Depression is common and occurs as part of the Mandrax 'hangover'.
- **Symptoms of an overdose:** Ataxia, lethargy, respiratory failure, hypotension, coma, death.
- **Withdrawal symptoms:** Anxiety and restlessness, nausea and vomiting, abdominal cramps, poor appetite, headaches, insomnia, tremors, weakness, and seizures. Withdrawal symptoms start 12-24 hours after the last dose and are worse at 24-72 hours.
- **Toxicology screening:** Urine

3. Management of withdrawal:

Withdrawal may only be mild and then no intervention is required.

If withdrawal is uncomfortable, the following regime should be followed. (Remember there is a risk of seizures with high tolerance so rather treat if you feel unsure.)

Day 1:	Diazepam 5 mg 3x/d orally
Day 2:	Diazepam 5mg 2x/d orally
Day 3:	Diazepam 5mg at night orally

For severe withdrawal, this regime may be stretched to last 5-7 days.

Please do brief intervention after stabilisation and refer to a social worker or a local registered in/outpatient specialist substance treatment service

3. Management of an overdose:

General life support measures.

Do brief intervention after stabilisation and refer to a social worker or a local registered outpatient specialist substance treatment service

STANDARD TREATMENT GUIDELINES ANDESSENTIAL MEDICINES LIST FOR SOUTH AFRICA : APPROACH
Only for intolerable withdrawal symptoms: • Diazepam, oral, 5 mg as needed. Maximum dose: 20 mg daily.

OPIOIDS (NARCOTICS) including "sugars/whoonga"

1. General information:

- **Types of opioid:**

OPIATES	SYNTHETIC OPIOIDS:
Morphine	Pethidine
Heroin	Wellconal
Codeine	Doloxene
Omnopon	Methadone
	Valoron

- **Toxicology screening:** Urine

(Will test positive for opiates but negative for related analgesics, unless specified.)

- **Symptoms of intoxication:**

Euphoria followed by apathy and drowsiness, pupillary constriction, constipation, slurred speech, , poor memory and poor attention, respiratory suppression, cough suppression, difficulty in passing urine, nausea and vomiting, sweating, flushing, itching, dry secretions, loss of libido, rarely convulsions.

- **Opioid withdrawal:** poorly tolerated, but not dangerous, except in very frail debilitated patients or during pregnancy.

SYMPTOMS	SIGNS
Abdominal cramps	Diarrhoea
Anxiety	Increased blood pressure
Craving	Increased pulse
Irritability, dysphoria	Lacrimation
Fatigue	Muscle spasms
Hot and cold flushes	dilated pupils
Muscle aches	Pilo-erection
Nausea, sweating	Rhinorrhoea
Restlessness	Vomiting
Yawning	Fever

DRUG	TIME FROM END OF USE TO WITHDRAWAL	PEAK WITHDRAWAL
Pethidine	4-6 h	8-12 h
Heroin	6-8 h	36-72 h
Morphine	8-12 h	
Codeine	24 h	
Methadone	36-72 h	72-96 h

2. Treatment of an overdose:

- **Signs of an overdose**: As with intoxication plus respiratory depression (may need ventilation), hypoglycaemia, seizures or coma.
- **Treatment of an overdose:** Naloxone (Narcan®) 0,4mg I.V. slowly at 5 minute intervals. Give subcutaneously or intramuscularly if not intravenous rout obtainable. If no response after 5 doses, reassess diagnosis of opioid toxicity. Maximum dose - 10mg Naloxone (Rarely needed)
  NB: The duration of action of Naloxone is much shorter than most opioids of abuse. (+/- 45 minutes) Thus, careful observation and repeat of Naloxone may be necessary. Naloxone, in itself, can precipitate a short-lived (20-40 min) withdrawal syndrome in a person dependant on opioids'.
  Correct hypoglycaemia.
- **Seizures due to overdose**
  Treat with IV diazepam 5-10 mg and repeat if necessary (rare).

3. Treatment of withdrawal:

General guidelines:

Detoxification should ideally be **postponed until rehabilitation is available**.

- Prior to detoxification, the client should receive a comprehensive medical assessment, including a detailed substance, medical and psychiatric history along with a physical and mental state evaluation and relevant special investigations if indicated.
- Clients should be educated that their level of tolerance is reduced during detoxification. The dose of illicit drug that was used prior to admission may now be enough to cause an overdose.
- Treat with methadone only if physical withdrawal symptoms are present. These include raised blood pressure and pulse, diarrhoea, lacrimation, muscle spasms, dilated pupils, pilo-erection, rhinorrhoea, vomiting and fever.
- Monitor patients and visitors carefully during hospital stay to prevent patients from using illicit drugs during their admission.

Regime 1: MILD WITHDRAWAL: symptomatic treatment (may be done as outpatient)

- **Diazepam** (Valium®) 5-20mg/day in divided doses and taper off over 5-7 days for anxiety, cramps, agitation and cravings. **(Use with caution: risk of abuse and of overdose if used with opioids)**
- **Hyoscine** butylbromide (Buscopan®) 10-20mg up to 3 times per day if needed for stomach cramps.
  For diarrhoea: : **Loperamide** (Imodium®) 4 mg stat followed by 2 mg after each loose stool until diarrhea is controlled. (maximum 16 mg per 24 hours)
- **Non-steroidal anti-inflammatory drugs and or paracetamol** (e.g. ibuprofen 200-400mg up to 3 times per day PRN) for muscle pain, flu-like symptoms.
  Metochlopramide (maxalon®) for nausea and vomiting :>60 kg: 10 mg up to 3x per day as needed (orally, intramuscularly or intravenous); < 60 kg: 5 mg up to 3 times per day
  Promethazine (Phenergan®) may help with irritability, dysphoria and anxiety: 10-25 mg 3 times per day (max 100 mg/day)
- Unpleasant withdrawal symptoms may be difficult to tolerate and may well lead to no adherence to treatment plan thereby making the whole effort futile, only if withdrawal symptoms are not well tolerated, consider Methadone (requires inpatient care however, see below).

Regime 2: MODERATE TO SEVERE WITHDRAWAL: hospitalise patient- (this should be done as an inpatient: *methadone to only be used to suppress withdrawal symptoms – not for long term substitute or maintenance treatment)*

- The baseline dose of methadone is determined by giving the client small increments of methadone until a dose is determined that alleviates signs of withdrawal without causing signs of intoxication. This is then gradually reduced.
- Patients should be monitored carefully, visitors should be limited and visits supervised to prevent patients from obtaining non-prescribed opioids. Concomitant use of these drugs with methadone may result in an overdose.
- The client should present in early withdrawal – i.e. roughly 8-12 hours after last use

Day 1:

- VERY IMPORTANT: Ensure the client is in withdrawal It is recommended that an objective rating scale is used for this e.g. COWS.
- Give Methadone 10 mg (=25 ml syrup) orally (supervise consumption) and watch for signs of intoxication (especially pinpoint pupils or drowsiness)
- If after 1-hour withdrawal symptoms still present, give another 5-10 mg (12-25 ml syrup) orally.
- After 1 hour, if still symptoms, repeat 5-10 mg for the last time.

- Initial dose to suppress withdrawal symptoms can be repeated after 12 hours if symptoms re-emerge.
- The total 24hr dose should **rarely** be more than 30mg

Day 2 onwards until baseline dose is determined:

- Repeat total dose of day 1 as a single or divided doses (2x/day).
- Watch for objective signs for withdrawal. If present, the daily dose may be increased by 5-10 mg. Watch for signs of intoxication.
- This can be repeated daily (2-3 days) until the dose is determined that prevents symptoms of opioid abstinence syndrome.
- The dose prescribed the previous day is then the baseline dose.

From baseline dose onwards:

- Decrease by 10-20% of baseline dose daily or alternate days.
- If patient's withdrawal symptoms allow it, the withdrawal regime may be shortened.
- Use non-substitute medication (regime 1) for any additional symptoms.

REMEMBER: DETOXIFICATION IS NOT THE TREATMENT FOR ADDICTION - all patients should have an ongoing rehabilitation program after detoxification.

STANDARD TREATMENT GUIDELINES ANDESSENTIAL MEDICINES LIST FOR SOUTH AFRICA : APPROACH

Mild withdrawal

May be done on an outpatient basis.

Symptomatic treatment

- Diazepam, oral, 5–20 mg/day in divided doses.

Taper off over 5–7 days.

For stomach cramps:

- Hyoscine butylbromide, oral, 20 mg up to 8 hourly as required.

For diarrhoea:

- Loperamide, oral, 4 mg immediately. Then 2 mg after each loose stool. Maximum dose: 16 mg in 24 hours.

Moderate to severe withdrawal

Hospitalise patient.

Substitution treatment

Methadone syrup should be used in a specialist rehabilitation centre.

Day 1: Only if clinical signs of withdrawal are present: Methadone, oral, 10 mg.

- If symptoms are still present after 1 hour, give another 5–10 mg.
- The initial dose to suppress withdrawal symptoms may be repeated after 12 hours.
- The total 24-hour dose should rarely be more than 30 mg.

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

Day 3 onwards: Decrease by 5 mg/day to a total of 10 mg. Thereafter reduce by 2 mg/day.

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

STIMULANTS: a) COCAINE

1. General information:

- **Street names:**
  - Cocaine powder (hydrochloride): "coke", "Charlie", "snow", "C", "dust"
  - Crack cocaine (freebase): "rocks", "bananas", "golf balls".
- **Effects and pattern of abuse:** Cocaine causes profound subjective feelings of well being and alertness. Tolerance develops very quickly. It has a short half-life (<90 min, compared to amphetamine: about 4 hours; methamphetamine: up to 12 hours). Stimulants are often taken in *binges* where repeated use cause extreme compulsive urges to take more. (Cocaine may be taken up to 10 times per hour.) Binges can last from several hours to several days. The binge is usually followed by a *crash*, (exhaustion, depression, cravings) which lasts from 9 hours to 4 days for cocaine. This is the followed by a *withdrawal phase* (anhedonia, anergia, anxiety and severe cravings). An *extinction phase* eventually ensues, with the return of normal hedonic responses together with episodes of craving brought on by conditioned triggers.
- **Routes of abuse:** Inhalation ("snorting"); Oral; Anal ("charging"); Smoking ("Free-basing"); Intravenous ("Mainlining"); IV with heroin ("speedballing")
- **Toxicology screening:** Urine

2. Intoxication

Symptoms:

- Psychiatric symptoms: Euphoria, hyperarousal, heightened self-esteem, agitation, impulsivity, reduced appetite, rapid and excessive talking, over activity, anxiety/ panic, violence, paranoia, formication. Late: exhaustion, hypersomnia, hyperphagia
- Physical symptoms: Tachycardia, hypertension, chest pain, dilated pupils, seizures, nausea, chills, teeth grinding, weight loss, cardiac arrhythmias.

Management:

- Mostly too brief to treat, support only.
- Diazepam or Lorazepam for anxiety, restlessness or convulsions.
- Monitor for complications (e.g. hyperthermia, convulsions)

3. Crash and withdrawal:

Symptoms:

- **Crash-** 9 hours – 4 days

During the early stages of this phase agitation, anorexia, depression and severe craving occur, followed by exhaustion and insomnia but with the desire to sleep. Hypersomnia and hyperfagia occur late.

- Late: **withdrawal-** 1-10 weeks

During this phase anhedonia, anergia, anxiety and severe cravings are prominent. This often builds up to a binge, which can perpetuate the cycle.

Management:

- Does not require admission unless medical or mental health complications
- Treat withdrawal symptomatically.
- For severe anxiety, irritability and insomnia, short term benzodiazepine, e.g diazepam, oral, 5-10mg3 times daily for 5-7 days.
- Monitor mental state and asses for suicide risk
- Once the patient is stabilised, do brief intervention and refer to social worker or local registered in / outpatient substance treatment service provider.

4. Psychiatric complications:

- **Depression:** If depressive symptoms persist, consider an antidepressant. Refer to psychiatry if suicidal.
- **Psychosis:** Psychosis generally rapidly abated with abstinence, adequate fluids and diet and restorative sleep. Benzodiazepines may be used for agitation. If psychotic symptoms (delusions, hallucinations) persist, it should be managed with antipsychotic medication, e.g. Haloperidol 1.5 mg daily and re-evaluate at one week. Refer to psychiatry if symptoms persist

or if patient are felt to be a danger to him or her self or others. Regularly asses for depression and suicide risk. Low dose the-psychotic beyond the acute episode should be considered to protect against further psychotic episodes. .Once the patient has stabilised, do brief intervention and refer to a local registered outpatient substance treatment provider

STANDARD TREATMENT GUIDELINES ANDESSENTIAL MEDICINES LIST FOR SOUTH AFRICA : APPROACH

STIMULANT WITHDRAWAL, INCLUDING METHAMPHETAMINES AND COCAINE

GENERAL MEASURES

- These patients usually do not require admission.
- Beware of depression and assess suicide risk.

MEDICINE TREATMENT

- No substitute drug available for detoxification.
- For severe anxiety, irritability and insomnia:

Benzodiazepines, short-term, e.g.:
Diazepam, oral, 5–10 mg 8 hourly for 5–7 days.

b) AMPHETAMINES (including Tik):

1. General information:

- **Types and street names**:
  - Amphetamines: Dextroamphetamine, Methamphetamine, Crystal Methamphetamine. Street names include "Speed", "Ice", "Tik", "Tuk-tuk"
  - Amphetamine-related drugs: Ephedrine and pseudo-ephedrine found in cold medications and diet pills, Methylphenidate (Ritalin® - abuse rare)
- **Toxicology screening:** Urine
- **Symptoms of intoxication:** Similar to cocaine. See page 14.

2. Management of intoxication and withdrawal

Management of intoxication and withdrawal is as for Cocaine. There is no substitute drug and detoxification is not possible. The symptoms tend to persist longer than with cocaine (longer half-life) and short-term benzodiazepines (e.g. Diazepam 5-10 mg orally, Lorazepam 1-2mg orally or IM if needed) or Promethazine (Phenergan®, 25-50 mg) may be necessary for agitation, anxiety and insomnia. Watch carefully for complications. (See below) Once stabilised, please ensure the patient is referred for further management

3. Complications:

- Hyperthermia, rhabdomyolisis (acute, during intoxication)
- Seizures (acute, during intoxication)
- Diarrhea, nausea and vomiting, skin rashes, hairloss, jaw clenching
- Heart and blood vessels: tachycardia, dysrhythmias, hypertension, cardiac failure or infarcts, endocarditis, brain hemorrhages, strokes
- Twitching, jitteriness, and repetitive behavior , movement disorders, like parkinsonism
- Lung and breathing problems, renal or liver damage, ischemic bowel
- Impaired sexual performance and reproductive functioning
- Nutritional deficiencies and body wasting
- Birth abnormalities and pregnancy related complications, like premature delivery, and altered neonatal behavioral patterns, such as abnormal reflexes and extreme irritability
- Psychiatric problems: Intoxication delirium (confused and disorientated); mania; psychosis (usually has a manic flavor, paranoia, visual and auditory hallucinations,

formication, delusions); depression with suicide risk; anxiety disorders; sleep disorders; long-term permanent brain damage.

4. Management of complications:

- **Medical complications** Specific treatments as indicated depending on the complication. **Hyperthermia** requires immediate cooling e.g. ice baths and prophylactic anticonvulsants may be given to the client who presents with an overdose to reduce risk of **seizures**. Refer for further treatment once patient is stabilized.
- **Psychiatric complications:** Same as management of cocaine-induced psychiatric complications. Treat any psychiatric symptoms if they persist after 1 week of abstinence. Refer any patients who pose a risk to him/herself or others as a result of the psychiatric complication, for urgent psychiatric assessment.

STANDARD TREATMENT GUIDELINES ANDESSENTIAL MEDICINES LIST FOR SOUTH AFRICA : APPROACH
MEDICINE TREATMENT • Haemodialysis may be required for acute renal failure. **For seizures**: • Diazepam, IV, 10 mg. **Severe hypertension**: • Labetalol, IV, 2 mg/minute to a maximum of 1–2 mg/kg.

DESIGNER DRUGS: ECSTASY:

1. General information:

- **Active ingredient**: MDMA (3,4-methylenedioxymethamphetamine)
- MDMA has a chemical structure similar to CNS stimulant, amphetamine and the hallucinogen, mescaline, and can produce both stimulant and psychedelic effects (psychedelic effects of MDMA are milder than those produced by hallucinogens such as LSD).
- With chronic use tolerance usually develops.
- **Toxicology screen**: Urine

2. Symptoms of intoxication:

- A "High" develops 30-90 minutes after ingestion (orally).
- This consists of **CNS stimulant effects** (enhanced sense of pleasure, increase self confidence and energy),
- **Psychedelic effects** (feelings of peacefulness, acceptance, empathy and perceptual and visual distortions) and
- **Physical effects** include increase heart rate and blood pressure, nausea, dry mouth, decrease appetite, jaw clinching, grinding of teeth, muscle aches and gait disturbance.

3. Immediate complications:

- **Hyperthermia** with rhabdomyolysis, renal failure and DIC
- **Hyponatremia** due to inappropriate ADH secretion
- **Water intoxication** due to overenthusiastic fluid intake at rave-parties
- **Seizures**
- **Fulminated liver failure**
- **Cardiac arrhythmias, hypertension and strokes**
- **Neuroleptic malignant-like syndrome:** Slow onset of bradykinesia/ stupor, rigidity, autonomic instability, hyperthermia/hyperpyrexia, diaphoresis, tachypnoea, tachycardia, hypertension, confusion, and raised creatinine phosphokinase
- **Serotonin syndrome:** (risk increased with concomitant serotoneric agents like SSRI's) Rapid onset of agitation, confusion, hyperactivity, clonus, myoclonus, ocular oscillations (nystagmus), shivering, tremor, and hyperreflexia. Hyperthermia/hyperpyrexia, diaphoresis, tachypnoea, tachycardia, hypertension, confusion, and raised creatinine phosphokinase may also be found.

4. Management of immediate complications:

- Follow general rules for poisoning on page 5. Serious complications (like the ones mentioned above), require treatment in a tertiary hospital.
- Once the patient has been stabilised, do brief intervention and refer to a social worker or local registered outpatient substance treatment program.

5. Long-term complications

- Major depression, anxiety disorders, panic disorder, paranoid ideation, increase impulsiveness and sleep disorders.
- Treat complications that persist for longer than one week.
- MDMA may precipitate the onset of psychosis in predisposed individuals.
- Long-term use may also lead to persistent memory deficits, especially of working memory.

HALLUCINOGENS (PSYCHEDELICS)

1. General information:

Ill-defined and diverse group of drugs

- Indolealkylamines (structurally similar to serotonin): e.g. Lysergic acid (LSD or "acid"; "sunshine"; "candy"; "smarties", other street names are based on pictures on paper impregnated blotters, e.g. Superman, Smiley Face, Garfield, Bart Simpson et cetera.); Psilocybin ("Magic mushrooms")
- Phenylethylamines: e.g. mescaline, MDA (some classify MDMA here)
- Dissociative anesthetics (the acrylcycloalkylamines): Phencyclidine (PCP, "Angel dust); Ketamine ("special K", "Vitamin K")
- Atropine-like family atropine and scopolamine
- Cannabis is sometimes also classified here.

Toxicology screen: urine

2. Symptoms of intoxication:

- **Symptoms** include anxiety, depression, feeling of "losing one's mind", intensification of perception, derealization, hallucinations, pupillary dilatation, tachycardia, sweating, blurred vision, tremor, in coordination, flushing, salivation, lacrimation, restlessness, synaesthesia
- May develop **psychosis**: above features, plus the development of delusions shortly after drug use

3. Management of intoxication:

- General life **support** measures (NB: safety of client and therapeutic team)
- Patient needs a "**babysitter**" or guide, to "talk down" (reassure) client in a safe and quiet environment, don't close eyes.
- Ongoing struggling (panic during intoxication) may cause rhabdomyolysis, hyperpyrexia and death.
- Mild anxiety and agitation: use **Lorazepam** 1-2 mg sublingual or IM
- Severe anxiety, restlessness and agitation: use Lorazepam (up to 4 mg) and if unsuccessful; use **Haloperidol** 2,5 - 5mg IM to sedate. Life support equipment must be at hand.
- Treat the hypertension if acute and life threatening.

4. Symptoms and management of withdrawal:

- No abstinence syndrome, thus no detoxification required.
- Brief intervention and referral to social worker or local registered outpatient specialist substance treatment program. .

5. Long-term side effects

- Chronic personality changes
- Psychotic episodes
- Chronic anxiety and depressive states
- Flashbacks, especially of bad trips may occur as long as 20 years after initial ingestion. Manage by reassurance and talking down.

VOLATILE AGENTS OR INHALANTS:

1. General information:

- **Agents:** Includes petrol, glue, lighter fuel, varnish remover, thinners, rubber cement, aerosols (spray paint)
- **Ingredients:** Toluene, acetone, benzene, trichloroethane, per- and trichloroethylene, propanes and hydrocarbons
- **Toxicology screen:** Volatile solvents cannot be detected in the urine

2. Intoxication:

- Commonly seen in children and destitute (e.g. street-children). After initial disinhibition, it causes CNS inhibition and suppression.
- May present with red face, in coordination, slurred speech, intoxicated gait, aggression, impaired judgement, apathy, stupor, psychotic symptoms
- Chronic use may lead to persistent cough, lethargy, runny nose, dementia, rash around mouth, cerebellar damage, deafness, neuropathy, leukaemia
- Risk of respiratory suppression, cardiac arrhythmias, aggression, asphyxiation and accidents during intoxication
- Also risk of liver cell damage, kidney failure and neuromuscular damage.
- Focus on **damage-limitation** with intoxication
- Contact local toxicology information centre immediately for more information

3. Withdrawal:

- No abstinence syndrome
- Once the patient is stabilised, do brief intervention and refer to a social worker, or a local registered specialist substance treatment provider

BENZODIAZEPINES:

1. General information:

- **Prevention:** Please be **cautious** when prescribing benzodiazepines. They are very addictive.
- Only prescribe benzodiazepines for **short periods** (no longer than 2 weeks) and give patients clear information concerning its addictive potential. Remember the shorter the half-life of the drug, the shorter the time from abstinence to withdrawal and the shorter and more severe the withdrawal syndrome.
- **Toxicology screen:** Urine

2. Overdose:

- Benzodiazepines have a favourably low toxicity and may be managed with **general life support** measures
- If **respiratory depression** (especially with associated alcohol or opioid intoxication) occur: **Flumazenil (Anexate)** 200-300µg IV over 15 seconds, wait one minute; if desired level of consciousness is not regained, repeat 100µg IV every minute up to 1mg.
- Ongoing observation is indicated. Repeat of this regime may be necessary. Monitor patient every 30 min because the half-life of Flumazenil is 50 minutes.
- Flumazenil (Anexate) may **precipitate** benzodiazepine **withdrawal** in benzodiazepine dependent patients.
- Take special care when a **combination** of a tricyclic antidepressant (TAD) and benzodiazepines were taken. If Flumazenil is used, the drop in benzodiazepine level and the anticholinergic effect of TAD may precipitate a seizure.

- If patient does not regain consciousness after 1mg of Flumazenil, then it is most probably not a benzodiazepine overdose.

3. Management of benzodiazepine withdrawal:

- The **therapeutic relationship** between client and doctor is most important in initiating dose reduction. Patients often do not view benzodiazepine dependence as an addiction because their doctor prescribed the medication. Denial may be a big problem. Patients may benefit from non-medication interventions, like relaxation techniques, sleep hygiene and problem solving skills. Encourage patients not to seek medication from other doctors. Negotiate each reduction with the patient.
- Withdrawal from benzodiazepines takes time (months to years). Be patient.
  Equivalents to diazepam 5mg = chlordiazepoxide 15 (10-25) mg
  clonazepam 0.25mg
  lorasepam 1(0,5-1) mg
  alprazolam 0.5 mg
  bromazepam 1.5 mg
  flunitrazepam 0.5 mg
  nitrazepam 5 (2,5-10) mg
  oxazepam 15 (5-30) mg
  temazepam 10 (7,5-15) mg
  loprazolam 1 mg
  lormetazepam 0,5 mg
  midazolam 7,5 mg
  triazolam 0,25 mg

  (These are estimates only- always treat the client's clinical picture- if still signs of withdrawal, give more diazepam and if signs of sedation or intoxication, reduce dose. If the calculated equivalent is a very high dose (e.g.>40 mg), it is wise to start with a lower dose, say 40 mg, and gradually increase until withdrawal symptoms disappear.)
- Remember, there is a cumulative effect with alcohol and patients may need higher doses of benzodiazepines if alcohol dependent as well.
- Decrease diazepam dose every 2 weeks by 2-2.5 mg, but stick to a dose for a while if symptoms appear, or go up a notch and reduce slower.
- When 20% of initial dose is reached, taper slower: 0.5-2 mg per week.
- Patient will require regular monitoring and motivation.
- Never stop benzodiazepines suddenly. It can be dangerous.

Carbamazepine (Tegretol) in therapeutic doses may be of value for benzodiazepine withdrawal symptoms.

MEDICINE TREATMENT

Replace short-acting benzodiazepine with an equivalent diazepam (long acting benzodiazepine) dose.

Patients may present with medicines that are unavailable in the public sector. Approximate equivalent doses to diazepam 5 mg are:

- chlordiazepoxide 15 mg
- lorazepam 1 mg
- alprazolam 0.5 mg
- bromazepam 1.5 mg
- flunitrazepam 0.5 mg
- nitrazepam 5 mg
- oxazepam 15 mg
- temazepam 10 mg
- zopiclone 7.5 mg
- zolpidem 10 mg

Note: drugs have been included for comparison only.

Decrease the dose of diazepam every 2 weeks by 2.5 mg. If symptoms reappear increase the dose a little and reduce more slowly.

KWAZULU NATAL DEPARTMENT OF HEALTH: DIRECTORATE OF MENTAL HEALTH AND SUBSTANCE ABUSE

DETOXIFICATION PROTOCOLS FOR CHILDREN AND ADOLESCENTS WITH SUBSTANCE USE DISORDERS

DEFINITIONS

Adolescent: 12-17 years
Child: <12 years

NB.

1. Detoxification is rarely required in children and is only indicated for symptomatic withdrawal.
2. Children with substance related problems should be referred to paediatricians
3. Children and adolescents presenting with co-morbid psychiatric problems should be referred for psychiatric evaluation upon completion of the detoxification.
4. Detoxification should be conducted as part of a comprehensive psychosocial rehabilitation programme.
5. Details of psychosocial rehabilitation are not included in this protocol. Users are advised to identify local rehabilitation facilities and establish working partnerships.

ALCOHOL

ALCOHOL WITHDRAWAL ASSESSMENT

1. Detailed history of substance use and previous treatment/rehabilitation
2. Forensic history
3. Physical examination: medical complications and injuries
4. Time of most recent drink
5. Concomitant drug intake (illicit and prescribed)
6. Severity of withdrawal symptoms
7. Co-existing medical/psychiatric disorders
8. Laboratory investigations: FBC, U&E, LFT, B/S

Withdrawal: Mild- moderate

- Occurs within 24-48 hours following cessation or reduction in alcohol consumption.
- Symptoms and signs: restlessness, irritability, agitation, tremor, sweating, anxiety, loss of appetite, nausea, vomiting, loss of appetite, insomnia, poor concentration, impaired memory and judgment. Tachycardia and systolic hypertension may occur. In mild-moderate withdrawal, symptoms disappear within 5-7 days after the last drink.
- Diazepam is used.
- The dose of diazepam is determined by the severity of the withdrawal symptoms.
- Once the requirement of diazepam has been determined, this is gradually reduced over several days.
- If higher doses are needed, admission to a medical facility is recommended.

Maximum doses per 24 hours*:
Day 1-3: 15mg in divided doses
Day 4-5: 10mg in divided doses
Day 6-7: 5mg at night

**If symptoms of withdrawal reappear upon reduction of dose, defer dose reduction for a day or two and re-attempt.*

If no response to maximum doses, consult a paediatrician.

Additionally: Thiamine 100mg IMI daily x 7/7

- The majority of patients can be detoxified in the community however, supervised, medically-assisted **inpatient treatment** is indicated where there is :
  - Severe dependence
  - History of DTs and or alcohol withdrawal seizures
  - A history of concurrent polydrug use
  - A history of failed community-level detoxifications
  - Poor social support
  - Cognitive impairment
  - Psychiatric co-morbidity (anxiety, depression, suicidal intent, psychotic illness)
  - Poor physical health e.g. diabetes, liver disease, hypertension, malnutrition, infection.

COMPLICATED WITHDRAWAL

- Hallucinations (auditory, visual or tactile)
- Delusions usually of paranoid or persecutory varieties
- Grand mal seizures
- Hyperthermia
- Delirium Tremens :
  - ✓ Toxic confusional state
  - ✓ Life-threatening condition: 5% mortality
  - ✓ Symptoms peak between 72-96 hours after last drink.
  - ✓ Symptoms and signs: clouding of consciousness and confusion, vivid hallucinations affecting every sensory modality, marked tremors, paranoid delusions, agitation, sleeplessness and autonomic hyperactivity (tachycardia, hypertension, sweating and fever) hours after the last drink.
- Risk factors for DTs and seizures: severe alcohol dependence, past experience of DTs, long history of alcohol dependence with multiple previous episodes of inpatient treatment, concomitant acute medical illness, severe withdrawal symptoms when presenting for treatment.
- Management:
  - ✓ Early diagnosis and prompt transfer to the general medical setting.
  - ✓ Replacement of fluids and electrolytes.

- ✓ Management of hypo/hyperglycaemia
- ✓ Thiamine replacement
- ✓ Intravenous Diazepam (monitor respiratory function)
- ✓ Management of co-morbid medical illnesses and injuries.

COMMUNTY DETOXIFICATION (PHC, CHC, DISTRICT HOSPITAL-OPD)

1. A responsible adult supervisor must be available at the patient's home.
2. Discuss comprehensive treatment plan with patient and adult supervisor.
3. Provide written guidelines on detox regime as well as contingency plans in the event of complications, as defined above, arising.
4. Patient to discontinue detox regime if resumes drinking.

Cannabis / Cannabis and Mandrax:

- ❖ Detoxification rarely required for cannabis alone.
- ❖ For Mandrax, use diazepam regime as above.

Stimulants: cocaine, amphetamine (including methamphetamine,TIK):

- No substitution detoxification indicated.
- Detoxification rarely required.
- If clinically indicated, use Diazepam as above.

OPIOIDS:

Table Objective opioid withdrawal scales			
Sympotoms	**Absent/Normal**	**Mild-moderate**	**Severe**
Lacrimation	Absent	Eyes watery	Eyes streaming/wiping eyes
Rhinorrhoea	Absent	Sniffing	Profuse secretion (wiping nose)
Agitation	Absent	Fidgeting	Cannot remain seated
Perspiration	Absent	Clammy skin	Beads of sweat
Piloerection	Absent	Barely palpable hairs standing up	Readily palpable, visible
Pulse rate (BPM)	<80	>80 but <100	>100
Vomiting	Absent	Absent	Present
Shivering	Absent	Absent	Present
Yawning/10 min	<3	3-5	6 or more
Dilated pupils	Normal <4-6mm	Dilated 4-6mm	Widely dilated >6mm

Mild withdrawal: Symptomatic treatment

- **Diazepam** (Valium®) 2, 5- 5 mg up to 4 times per day in divided doses and taper off over 5-7 days for anxiety, cramps, agitation and cravings.
- (< 14 years: max of 10 mg /day)
- **Hyoscine** butyl bromide (Buscopan®) 10-20mg up to 3 times per day PRN for stomach cramps.
- For diarrhoea: **Diphenoxylate** (Lomotil®)
  - ❖ 9-12 years: 2.5 mg up to 4 x daily
  - ❖ 13-16 years: 5mg up to 3x daily
  - ❖ > 16years : 10mg stat and then 5 mg up to 4 x daily

• **Non-steroidal anti-inflammatory drugs/paracetamol** (e.g. ibuprofen 20mg/kg/24 hours, divided into 4 doses, max 400mg TDS) for muscle pain, flu-like symptoms.

Moderate to severe withdrawal:
Admit to a medical facility.

Benzodiazepines

1. Replace short-acting benzodiazepine with long acting benzodiazepine.
Equivalents to diazepam 5mg = chlordiazepoxide 15 (10-25) mg
lorasepam 1(0,5-1) mg
alprazolam 0.5 mg
bromazepam 1.5 mg
flunitrazepam 0.5 mg
nitrazepam 5 (2,5-10) mg
oxazepam 15 (5-30) mg
temazepam 10 (7,5-15) mg
loprazolam 1 mg
lormetazepam 0,5 mg
midazolam 7,5 mg
triazolam 0,25 mg
2. Decrease diazepam dose every 2 weeks by 2-2.5mg, but if symptoms reappear, stick to a dose for a while, or go up a notch and reduce more slowly.
3. When 20% of initial dose is reached, taper slower: 0.5-2mg per week.
4. Patient will require regular monitoring and motivation.
5. Never just stop benzodiazepines. It can be dangerous.

Hallucinogens

No detoxification indicated

Volatile solvents

No detoxification indicated

Nicotine

No detoxification indicated

Useful phone numbers:

Outpatient specialist substance treatment services:

Inpatient substance treatment programs:

Government/ NGO rehab facilities:

Other agencies: