

REPUBLIC OF KENYA



MINISTRY OF HEALTH

THE NATIONAL PROTOCOL FOR TREATMENT OF SUBSTANCE USE DISORDERS IN KENYA

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2017**

The National Protocol for Treatment of Substance Use Disorders in Kenya, 2017.
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Dr. Simon Njuguna
DIRECTOR OF MENTAL HEALTH

FOREWORD

Substance (Drug) Abuse is increasing in Kenya and especially among the youth. Current statistics indicate that more than half of drug users are aged 10-19 years. The youth are the backbone of any country for socio-economic development and any disruption to the social fabric within this age group results in decline in literacy levels, loss of productivity and therefore economic loss to the country. In line with our Vision 2030 of becoming a globally competitive middle income economy and prosperous nation, urgent measures are required to treat substance use related disorders.

Most studies done in the country indicate that the commonly used drugs are nicotine, alcohol and cannabis. Due to the strategic location of Kenya in the East African region and Nairobi being an economic hub in the region, there has been an upsurge of international narcotic drug trafficking leading to increased injecting drug users (IDU). The Kenya HIV/ AIDs Indicator Survey (KAIS) 2012 reports indicates that HIV prevalence rate among IDUs stands at 18.3% compared to 6.7% among the general population.

The Kenya Constitution 2010 under Chapter Four (the Bill of Rights) recognizes the right to the highest attainable level of health care to all. In this regard, persons with substance use disorders are entitled to access quality healthcare services. This protocol will therefore be available to all service providers countrywide for use in provision of standardized and quality healthcare services to alcohol and drug users and will therefore enable appropriate management of substance use and its related health and social consequences including communicable and non-communicable diseases. It is based on international best practice to manage substance use disorders and will be a useful and practical guide for practitioners dealing with substance abuse problems in Kenya.


This protocol outlines the pharmacological treatment, psychosocial interventions and aftercare support which will be provided in line with international standards and procedures, while respecting the National social, cultural and economic realities. It provides a humane and scientific approach delivered by skilled practitioners in order to assist the alcohol or drug dependent person to attain the highest level of personal, professional, familial and social functioning. I urge all the stakeholders involved in treatment of substance use disorders to make good use of this protocol.



Dr. Kioko Jackson K., OGW
DIRECTOR OF MEDICAL SERVICES

LIST OF ABBREVIATIONS

AA	Alcoholics Anonymous
ADH	Alcohol dehydrogenase
ADS	Alcohol Dependence Scale
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Treatment
ARV	Antiretroviral
ASI	Addiction Severity Index
ASSIST	Alcohol, Smoking & Substance Involvement Screening Test
AUDIT	Alcohol Use Disorder Identification Test
BID	Twelve Hourly Dose
CAGE	Cut down, Angry, Guilt, Eye opener
CBT	Cognitive Behavior Therapy
CNS	Central Nervous System
DHHS	Department of Human Health and Human Services
DMT	N,N-Dimethyltryptamine
DSM IV-TR	Diagnostic and Statistical Manual of Mental Disorders. 4 th Edition. Text Revised
FDH	Formaldehyde dehydrogenase
GABA	Gamma Amino Butyric Acid
HIV	Human Immunodeficiency Virus
ICD - 10	International Classification of Diseases -10
ICU	Intensive Care Unit
IM	Intra-Muscular
IV	Intravenous
LFTs	Liver Function Tests
LSD	Lysergic Acid Diethylamide
MAT	Medication Assisted Treatment
MAST	Michigan Alcoholism Screening Test
MAOIs	Mono Amine Oxidase Inhibitors
MDMA	3,4 Methylendioxyamphetamine
MOH	Ministry of Health
MMT	Methadone Maintenance Treatment
NA	Narcotics Anonymous
NACADAA	National Authority for the Campaign Against Alcohol and Drug Abuse
NGO	Non Governmental Organization
NHIF	National Hospital Insurance Fund
NPS	New Psychoactive Substances
OD	Once Daily Dose
PCP	Phencyclidine
PMO	Provincial Medical Officer
PWID	People Who Inject Drugs
PWUD	People Who Use Drugs



PRN	As required medication
QID	Six Hourly Doses
SSRIs	Selective Serotonin Re- uptake Inhibitors
STIs	Sexually Transmitted Infections
SUD	Substance Use Disorders
TDS	Eight Hourly Dose
THC	Tetra Hydro Cannabinol
TIP	Treatment Improved Protocol
U.S.	United States
UNODC	United Nations Office on Drugs and Crime
W.H.O	World Health Organization

CHAPTER 1

1.0 INTRODUCTION

1.1 Definition and Classification of Substance Use Disorders

Substance use disorders are characterized by a pattern of continued pathological use of a psychoactive substance that results in repeated adverse physiological, behavioral and social consequences.

The ICD 10 defines Dependency syndrome as: “A cluster of physiological, behavioural, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had a greater value” (WHO Expert Committee on Drug Dependence, 1998).

Substance use disorder in DSM-5 combines the DSM-IV categories of substance abuse and substance dependence into a single disorder measured on a continuum from mild to severe. Each specific substance (other than caffeine, which cannot be diagnosed as a substance use disorder) is addressed as a separate use disorder (e.g., alcohol use disorder, stimulant use disorder, etc.), but nearly all substances are diagnosed based on the same overarching criteria. In this overarching disorder, the criteria have not only been combined, but strengthened. Whereas a diagnosis of substance abuse previously required only one symptom, mild substance use disorder in DSM-5 requires two to three symptoms from a list of 11. Drug craving is added to the list, and problems with law enforcement eliminated because of cultural considerations that make the criteria difficult to apply internationally.

DSM 5-Substance use disorders span a wide variety of problems arising from substance use, and cover 11 different criteria:

1. Taking the substance in larger amounts or for longer than you meant to
2. Wanting to cut down or stop using the substance but not managing to
3. Spending a lot of time getting, using, or recovering from use of the substance
4. Cravings and urges to use the substance
5. Not managing to do what you should at work, home or school, because of substance use
6. Continuing to use, even when it causes problems in relationships
7. Giving up important social, occupational or recreational activities because of substance use
8. Using substances again and again, even when it puts you in danger
9. Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance
10. Needing more of the substance to get the effect you want (tolerance)
11. Development of withdrawal symptoms, which can be relieved by taking more of the substance.

The DSM 5 allows clinicians to specify how severe the substance use disorder is, depending on how many symptoms are identified. Two or three symptoms indicate a mild substance use disorder, four or five symptoms indicate a moderate substance use disorder, and six or more symptoms indicate a severe substance use disorder. Clinicians can also add “in early remission,” “in sustained remission,” “on maintenance therapy,” and “in a controlled environment.”

1.1.1 Background

Global substance use management policies are moving towards a more balanced and comprehensive approach that highlights public health, human rights and development outcomes, consistent with the original purpose of the international drug control conventions to promote the health and welfare of mankind.

In the 2030 Agenda for Sustainable Development, target 3.5 commits Governments to strengthen the prevention and treatment of substance abuse, and a range of other targets are of particular relevance to drug control, particularly target 3.3 on ending the AIDS epidemic and combating hepatitis, target 3.4 on prevention and treatment of non-communicable diseases and promotion of mental health, target 3.8 on universal health coverage and target 3.b on access to essential medicines

The Kenya Health Policy, 2014 -2030 gives directions to ensure that the country attains the highest standards of health in a manner responsive to the needs of the population. Further, the Kenya Health Sector Strategic and Investment Plan (KHSSP) 2013-2017 performance monitoring indicators and targets include minimizing exposure to health risk factors and halting and reversing the rising burden of non-communicable diseases.

The aspirations of Kenya's Mental Health Policy 2015-2030 priority actions which include: developing a National strategic program on substance use management; investment plans to improve access to effective substance use management; capacity building and quality assurance to meet the guidelines and standards for evidence-based best practices in substance use management; integrating substance use management in the health care and social welfare system in the comprehensive continuum of care.

1.1.2 Rationale

The growing global burden of substance use disorders cannot be overemphasized. The World Health Organization (WHO) estimates that the global burden of disease attributable to alcohol and illicit drug use amounts to 5.4% of the total burden of disease. The UNODC World Drug Report 2017, estimated that a quarter of a billion people (5 per cent of the global adult population), used drugs at least once in 2015. Even more worrisome is the fact that about 29.5 million of those drug users (0.6 per cent of the global adult population) suffer from drug use disorders. This means that their drug use is harmful to the point that they may experience drug dependence and require treatment.

Several studies have highlighted the serious nature of substance use in Kenya, ranging from alcohol and tobacco to cannabis, khat, heroin and others. Kenyans generally hold positive attitudes towards consumption of substances such as cigarettes (73%), packaged liquor (72%), traditional brew (69%), other tobacco products (68%) and khat (54%).

NACADA National survey on alcohol and drug abuse among secondary school students in Kenya 2016, showed the following prevalence rates among students: Alcohol 9.3%, Prescription drugs 6.8%, Khat/miraa 5.9%, Tobacco 5.2%, Cannabis/bhang 3.7%, Inhalants 0.8%, Heroin 0.4%, Cocaine 0.4%. According to the study, the age between 13 to 15 years was the most critical period for the students in secondary schools to initiate alcohol and drug use. The Ministry of Health STEPWISE Survey 2015, reported a prevalence of 19% for current alcohol users and 13% for current tobacco users.

It is clear that excessive or inappropriate use of alcohol and other drugs is a major public health problem globally. Health consequences of substance use are numerous and hence the need for public health systems to spear head the prevention, treatment and care. Effective strategies and interventions exist to prevent and treat substance use disorders. These treatment

guidelines are important tools for improving the delivery of evidence based practices and reducing inappropriate variation in current treatment approaches.

1.1.3 New Trends in Drug Use

Traditionally, drugs of abuse included plant-derived substances such as cocaine, heroin and cannabis. More recently, amphetamine and related stimulants synthesized in illicit laboratories have become widely available. The most recent trend is the diversion, illicit distribution and abuse of prescription drugs that are classified as controlled substances such as synthetic pain medicines, sedative hypnotics, and psychostimulants. Those medicines have legitimate use under the medical supervision but their use can quickly become problematic if used inappropriately.

In order to avert legal efforts at controlling distribution of psychoactive substances, hundreds of new psychoactive substances (NPS) are synthesized, distributed, and abused every year with unpredictable and often dramatic adverse consequences in users. The production and trafficking of NPS, that can be purchased through the internet make monitoring and control even more difficult. Very few countries have in place an early warning system to collect and share information on these new substances. Concurrently, the mechanism of control relies on national legislations, typically with a long term process necessary to schedule new drugs under the Conventions international control. This expansion of NPS will continue to place an added burden on the already challenged healthcare systems.

Because of the emergence of NPS and changes in the distribution routes of the traditional drugs of abuse in many countries and parts of the world, health institutions are poorly prepared and less able to respond appropriately to the emergence of new behavioural and medical problems in drug users. For example, in parts of the world where opioids were previously used, there are now large increases in prevalence of psychostimulant use disorders and treatment system developed to manage opioid-related problems disorder is not able to respond appropriately to the new type of patients. Similarly, the trend toward poly-drug use among the young consumers, combining “traditional” drugs, prescription drugs, alcohol and new psychoactive substances, has evidenced an even more dramatic picture that requires urgent investment treatment programs and human resources.

This protocol is a basic guide on the treatment of substance use disorders. Doctors and other professionals, however, may need to access more detailed information and specialist advice about interventions described in the treatment protocol. It is intended for use by clinicians and civil society organizations (CSOs) especially those providing pharmacological and psychological interventions for people who use drugs as a component of substance use disorders treatment.

In this protocol, treatment is divided into: medical detoxification, management of intoxication and overdose, maintenance treatment, management of co-morbid medical and psychiatric disorders, relapse prevention and psychosocial interventions.

1.2 Overview Of Psychoactive Substance

Psychoactive substances can be classified as shown in the table below:

Depressants	Stimulants	Hallucinogens
<ul style="list-style-type: none"> Alcohol Benzodiazepines Opiates/Opioids Cannabis (low doses) Solvents/ Inhalants NPS 	<ul style="list-style-type: none"> Nicotine Khat Cocaine Amphetamine Methamphetamine MDMA (ecstasy) NPS 	<ul style="list-style-type: none"> Cannabis (high doses) Ketamine PCP LSD/DMT Magic mushrooms Mescaline MDMA (ecstasy) NPS

The commonly used licit and illicit psychoactive substances that can result in substance use disorders are described below. These include alcohol, nicotine, cannabis, khat, cocaine, methamphetamine, opiates/opioids, prescription drugs and new psychoactive substances (NPS).

1.2.1 Depressants

These include alcohol, prescription medication such as benzodiazepines and opiates as well as other opioids and solvents/inhalants.

1.2.1.1 Alcohol

Alcohol (ethanol) is a CNS depressant, exerting its effects by several mechanisms. It binds directly to γ -amino butyric acid (GABA) receptors in the CNS, causing sedation and directly affecting cardiac, hepatic and thyroid tissues. Large amounts consumed rapidly or chronically can cause respiratory depression, coma and death.

Alcohol withdrawal manifests as a continuum, ranging from tremors to seizures, hallucinations and life-threatening autonomic instability in severe withdrawal (delirium tremens –DT). Detoxification is mainly done as an inpatient procedure and regular monitoring of vital signs is absolutely essential.

Symptoms of alcohol effects on an individual are proportionate to the Blood Alcohol Concentration (BAC). 0.1% BAC is equivalent to 100 mg alcohol in 100ml blood. The levels required to produce given signs and symptoms vary with tolerance, but in typical users it is as follows:

EFFECTS OF ALCOHOL INTOXICATION	
BAC	EFFECTS
10-20mg/dL	sobriety, clearing of head
20-50mg/dL	tranquility, mild sedation and some decrease in fine motor co-ordination
50-100mg/dL	impaired judgement and a further decrease in co-ordination
100-150mg/dL	unsteady gait, nystagmus, slurred speech, loss of behavioral inhibitions and memory impairment
150-300mg/dL	poor judgement, nausea, vomiting, delirium and lethargy
300-450mg/dL	blackout, memory loss, stupor and coma
> 450mg/dL	death

Alcohol Withdrawal

Alcohol withdrawal occurs when a person with alcohol use disorder suddenly stops or significantly reduces their alcohol intake. The symptoms may appear from 6 hours to several days after the last drink and can range from mild anxiety and tremors to severe complications such as seizures and life threatening delirium tremens.

Mild alcohol withdrawal	Severe alcohol withdrawal
Insomnia	Seizures (generalized tonic-clonic)
Nightmares	Hallucinations (commonly vivid visual hallucinations)
Tremors	Mood changes
Anxiety	Dehydration
Headache	Hypertension
Nausea and poor appetite	Delirium tremens characterized by tremors, hallucinations, agitation, confusion, disorientation, hypertension, hyperthermia, excessive sweating, altered sensorium
Excessive sweating	
Palpitations	

Delirium Tremens is a life threatening condition that occurs in about 5 percent of patients with alcohol withdrawal and the risk factors for developing DTs include severe alcohol use disorder, previous history of DT, concurrent medical illness, malnutrition and age >30 years.

1.2.1.2 Methanol

Methanol is a product of poorly adulterated alcoholic beverages and its toxicity is a common occurrence in many parts of the developing world especially among members of the lower socioeconomic status. Methanol is also known as industrial or wood alcohol and is mixed up with ethanol that is used for medical purposes. It is a commonly used organic solvent in printing and copy solutions, adhesives, paints, polishes and stabilizers. It is also used for window cleaners, antifreeze, as a fuel in alcoholic lamp and as an additive in gasoline. Methanol is sometimes used to fortify illicit spirits and home-made brews. Some unscrupulous dealers may package methanol as ethanol.

Methanol as an alcohol is rapidly absorbed through the gastro-intestinal tract, so the average absorption half-life is 5 minutes and reaches maximum serum concentration within 30-60 minutes and well dissolves in body water. Methanol is not toxic by itself, but its metabolites are toxic. Lethal dose ranges from 60ml – 240ml. Methanol is metabolized in many phases, mainly in the liver, the initial enzyme in its metabolism being alcohol dehydrogenase (ADH). Formaldehyde dehydrogenase (FDH) and 10-formyl tetrahydrofolate synthetase (F-THF-S) are also enzymes involved in methanol metabolism.



Clinical manifestation of poisoning with methanol alone generally occurs within 30 minutes to 4 hours of ingestion. They include nausea, vomiting, abdominal pain, confusion, drowsiness and central nervous system depression. Patients usually do not seek help at this stage. After a latent period of 6 to 24 hours that depends on the dose absorbed, decompensate metabolic acidosis occurs, which induces blurred vision, photophobia, changes in visual field, accommodation disorder, diplopia, blindness and less commonly, nystagmus. Blurred vision with unaltered consciousness is a strong suspicion for methanol poisoning. Other signs and symptoms may include increased heart and respiratory rate, hypertension and altered mental status. Pulmonary oedema, acute respiratory distress, arrhythmia, heart failure, drowsiness, seizures, stupor, opisthotonus, coma and death may occur.

Severe metabolic acidosis with anion gap and increased osmolality strongly suggest methanol and ethylene glycol poisoning. Severity of clinical manifestations and mortality is associated with severity of central nervous system depression and metabolic acidosis, but not with serum concentration. Co-ingestion of ethanol may delay methanol poisoning features for more than 24 hours and sometimes up to 72 hours.

1.2.1.3 Opiates/Opioids

Opioids are a class of drugs chemically similar to alkaloids found in the opium poppy plant. They are commonly used as analgesics but they also have great potential for misuse. Repeated use greatly increases the risk of developing an opioid use disorder.

Opiates/ Opioids are classified as follows:

Classification	Examples
Pure agonists	Opium, Morphine, Codeine, Papaverine
Semi- synthetic agonists	Heroin, Hydromorphone, Oxycodone
Synthetic agonists	Methadone, Pethidine, Fentanyl, Meperidine, Hydrocodone, Pentazocine, Dextropropoxyphene
Partial agonists	Buprenorphine

NB: Opioid antagonists, examples; Naltrexone, Naloxone

Methadone and dextropropoxyphene share a common structure that enables interaction with opioid receptors. These entirely artificial drugs have been synthesized without commencing the process with a naturally occurring opioid.

Heroin (diacetylmorphine), a semi-synthetic substance, is the result of a chemical process that combines opium with two additional molecules. After liver metabolism of Heroin, Morphine is produced through hydrolysis (**heroin** → **monoacetylmorphine (MAM)** → **morphine**) and excreted in urine as free and conjugated morphine. Heroin and its metabolites are present in urine for approximately 48-72 hours following use.

Signs and symptoms of acute opioid intoxication include:

Signs and Symptoms of opioid intoxication	
Constricted pupils (miosis)	Altered perception
Itchiness of skin (pruritus)	Euphoria
Flushed skin	Analgesia/ altered pain perception
Suppression of cough reflex	Impaired cognition (consciousness is preserved)
Dry mouth, skin and eyes	Sense of tranquility or contentment
Urinary retention	Slow breathing
Hypothermia	Constipation
Hypotension	
Bradycardia	
Hypoventilation	
Pulmonary oedema (non cardiogenic)	
Slurred speech	
Sedation	
Coma	
Death	

Long-term health related complications may result from opioid dependence, poor general self care, criminal behavior, drug impurities or contaminants and blood borne viruses such as HIV, Hepatitis B and C. Others also include constipation/narcotic bowel syndrome, reproduction and endocrine irregularity, medication induced headaches, intense sadness (depression/dysthymia), cognitive impairment from hypoxia as a result of repeated non-fatal overdose.

Withdrawal signs and symptoms of heroin, also commonly referred to as ‘cold turkey’ are often pronounced and dramatic though usually nonfatal. They begin 8 -12 hours after the last dose and can last 5-7 days.

Signs and symptoms of opioid withdrawals are as follows:

Signs and Symptoms of opioid withdrawal	
Yawning	Anorexia and nausea
Tearing (lacrimation)	Abdominal pains or cramps
Dilated pupils (mydriasis)	Hot and cold flushes
Sweating (diaphoresis)	Joint and muscle pain or twitching
Sneezing, Runny nose (rhinorrhoea)	Lack of sleep (insomnia)
Tremors	Drug cravings
Goose flesh pimples (piloerection)	Restlessness/ anxiety
Diarrhoea and vomiting	

Signs and symptoms of opioid overdose are as follows:

Signs	Symptoms
<ul style="list-style-type: none"> • Pinpoint pupils • Hypotension • Bradycardia • Hypoventilation • Unsteady gait • Slurred speech • Sedation/ Coma <p>Symptoms may last for 24 hours or more. Death may result from respiratory depression</p>	<ul style="list-style-type: none"> • Can't be woken up by noise or pain • Blue lips and fingernails due to lack of oxygen • Slow breathing (less than 1 breath every 5 seconds) • Gaspings, gurgling or snoring • Choking sounds • Passing out • Vomiting • Pale face • Tired body

Various factors that may increase the risk of overdose in an individual include:

- Resuming drug use after having abstained for a while
- Change in the purity of the drugs
- Using a mix of drugs, like opioids with alcohol or other depressants
- Physical illness due to poor health, dehydration, under-nutrition
- Mental illness like depression
- Past history of overdose events
- Using street drugs while on opioid maintenance therapy like alcohol, heroin or benzodiazepines
- Interactions with prescription medication such as Antiretroviral drugs for HIV and Antituberculosis drugs.

1.2.1.4 Prescription Drugs

These include a wide range of medication such as opioids and benzodiazepines. Benzodiazepines are widely used as sedatives/ hypnotics and anxiolytics. They have a high potential for dependence when used without medical supervision, on higher doses or for longer duration than prescribed.

1.2.1.5 Inhalants

These are substances present in a variety of household and industrial products such as solvents (paint thinners, gasoline, glues); gases (butane, propane, aerosol propellants, nitrous oxide); nitrites (isoamyl, isobutyl, cyclohexyl); laughing gas, poppers, snappers and whippets. They are inhaled through the nose or mouth by sniffing, huffing or bagging.

- Sniffing refers to inhalation from an open container.
- Huffing refers to the soaking of a cloth in the volatile substance before inhalation.
- Bagging refers to breathing in and out of a paper or plastic bag filled with fumes.

Inhalant abuse is defined as recreational exposure to chemical vapors such as nitrates, ketones and aliphatic and aromatic hydrocarbons. It is particularly prevalent in children and young adults.

Most inhalants produce euphoria, increased excitability of the ventral tegmental area (VTA) has been documented for toluene and may underlie its addiction risk. With chronic exposure to the aromatic hydrocarbons (benzene, toluene), toxic effects can be observed in many organs, including white matter lesions in the central nervous system.

Management of overdose with inhalants is supportive.

1.2.2 Hallucinogens

These are substances which distort the senses and usually produce hallucinations - experiences that depart from reality. Although most hallucinations are visual, they may also involve the senses of hearing, touch, smell, or taste - and occasionally several senses simultaneously are involved.

The substances include: cannabis in high doses, ketamine, phencyclidine (PCP), Lysergic Acid Diethylamide / N,N-Dimethyltryptamine(LSD/DMT), magic mushrooms, mescaline and methyldioxymethamphetamine(MDMA - ecstasy)

1.2.2.1 Cannabis

Cannabis, also known as **marijuana, grass, skunk, weed, hash and ganja** is usually sold as either a dark brown lump of resin or as bags of dried herbs, flower heads and seeds. Its active ingredient is **Δ -9-Tetra-Hydro-Cannabinol (THC)**.

Within two hours of cannabis use, one may develop conjunctival injection (red eyes), increased appetite, dry mouth and increased heart rate. They also have euphoria, anxiety, impaired motor co-ordination, sensation of slowed time and impaired judgement.

Heavy users tend to smoke cannabis more frequently after building up a tolerance to the drug. Regular use of cannabis especially at an early age and amongst the young people results in a range of long-term effects and risks, which include social withdrawal, lack of motivation (Amotivational Syndrome), high blood pressure, heart problems and breathing problems like asthma. Short-term memory loss, concentration problems, psychosis and depression can also occur.

Withdrawal symptoms include irritability, anger, aggression, nervousness or anxiety, sleep difficulty (insomnia or disturbing dreams), decreased appetite or weight loss, restlessness, depressed mood or other physical symptoms causing significant discomfort such as abdominal pain, tremors, sweating, fever, chills or headache.

1.2.3 Stimulants

A group of synthetic and plant-derived drugs that increase alertness and arousal by stimulating the central nervous system.

Medical Uses: Short-term treatment of obesity, narcolepsy, and hyperactivity in children

Method of Use: Intravenous, intranasal, oral, smoking

Types: Nicotine, Khat, Cocaine, Methyldioxymethamphetamine (MDMA), Amphetamine Type Stimulants (ATS) – Amphetamine, Dexamphetamine, Methylphenidate and Methamphetamine.

The patient may present with euphoria of affective blunting, hypervigilance, anxiety, tension, anger, impaired judgement and changes in sociability. Other signs and symptoms may include tachycardia or bradycardia, papillary dilation, elevated or lowered blood pressure, sweating or chills, nausea or vomiting and evidence of weight loss. There may be psychomotor agitation or retardation. Muscular weakness, respiratory depression, chest pain or cardiac arrhythmias may occur. Confusion, seizures, dyskinesias, dystonias or coma may occur in severe cases of intoxication

1.2.3.1 Nicotine

Nicotine is present in tobacco products. Tobacco products come in various forms such as cigarettes, shisha, 'kuber', 'snuff' and chewable forms. Nicotine is a highly addictive drug. Smoking is not only a physical addiction, but also becomes linked with many social activities and coping needs, making it a difficult habit to break.

When an individual who is addicted to nicotine stops smoking, they may experience withdrawal symptoms such as increased anger, hostility and anxiety. A smoking cessation program should be encouraged during the early phases of drug dependency treatment.

1.2.3.2 Khat

Khat is a natural stimulant from the **Catha edulis** plant, found in the flowering evergreen tree or large shrub which grows in East Africa and Southern Arabia. It is also known as **Miraa, Catha, Quat, Chat, Muguka, Abyssinian Tea**. Khat leaves contain a psychoactive substance called **cathinone**, which is structurally and chemically similar to **d-amphetamine and cathine**, a milder form of cathinone.

When fresh khat leaves are chewed over several hours, they produce a mild cocaine-like or amphetamine-like euphoria and generate intense thirst. Khat is a sympathomimetic and its pharmacological effects are believed to parallel those of amphetamines. Psychiatric manifestations induced by khat are similar to the effects of other known stimulants.

After ingestion of khat, one may present with euphoria of affective blunting, hypervigilance, anxiety, tension, anger, impaired judgement and changes in sociability. Other signs and symptoms may include tachycardia or bradycardia, papillary dilation, elevated or lowered blood pressure, sweating or chills, nausea or vomiting and evidence of weight loss.

Withdrawal symptoms include dysphoric mood, fatigue, vivid unpleasant dreams, increased appetite, psychomotor retardation or agitation.

1.2.3.4 Cocaine

Cocaine is extracted from the leaves of the coca plant, growing in the Andean mountains in South America. Street names include: **coke, C, blow, Charlie, snow, dust, white, flake, mojo, paradise, nose candy, sneeze, sniff or toot**. Cocaine is distributed in the streets in two main forms: cocaine hydrochloride which is a white crystalline powder and “crack”, which is cocaine hydrochloride that has been processed with ammonia or sodium bicarbonate (baking soda) and water into a free base cocaine (chips, chunks or rocks). Cocaine can be snorted in its hydrochloride powder form or dissolved in water and injected. Crack can be smoked and it offers a short but intense ‘high’ to the smokers. It is most commonly smoked through a pipe, the quickest way to get the drug to the brain. Glass pipes, tin cans or plastic water bottles are used as conduits.

Cocaine is a powerful stimulant whose effects wear off quickly, prompting the user to repeat the dose. Its initial effect is to induce euphoria, the ‘high’ usually lasts 5-10 minutes after which the user feels depressed and low. Effects of crack cocaine include euphoria, overconfidence, loss of appetite, lack of sleep, alertness, increased energy and craving for more cocaine. The after-effects of crack use may include fatigue, depression, paranoid ideation and depersonalization as people ‘come down’ from the high.

Excessive doses can cause a range of severe medical problems such as pulmonary oedema, myocardial infarction, heart failure, cerebral haemorrhage, stroke, hyperthermia and even death. Chronic use of crack can result in some physical and marked psychological dependence. High dose users, especially of crack, are likely to need treatment for a large range of physical and psychological problems.

1.2.3.5 Methamphetamine

Methamphetamine generally takes the form of clear crystallized chunks, which can dissolve in water and break down into smaller particles. It is known in the streets as ‘**meth**’, ‘**crystal meth**’ or ‘**ice**’. It is smoked in a base form. It produces a profound sense of euphoria in the user and stimulates the release of dopamine and noradrenaline in the central nervous system.

Methamphetamine is a psychostimulant whose use is typically followed by depression and fatigue. Smoking it will extend its effects for up to 24 hours per ingestion.

The effects include: extreme elation, wakefulness, alertness, enhanced self-confidence, aggression, talkativeness, loss of appetite, increased initiative, increased physical activity. Withdrawal symptoms include: severe craving, deep depression, fatigue, inertia, paranoia and psychosis.

1.2.4 New Psychoactive Substances (NPS)

These are substances of abuse, either in a pure form or a preparation, that are not controlled by the 1961 Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat. The term ‘new’ does not necessarily refer to new inventions but substances that have recently become available.

Six main groups of substances have been identified in this market:

- synthetic cannabinoids
- synthetic cathinones
- ketamine
- phenethylamines
- piperazines
- plant-based substances

CHAPTER 2

2.0 KEY PRINCIPLES IN MANAGEMENT OF SUBSTANCE USE DISORDERS

2.1 Characteristics of an effective system to deliver services for the treatment of substance use disorders.

An effective national system for the effective treatment of substance use disorders requires a coordinated and integrated response of many actors to deliver policies and interventions based on scientific evidence in multiple settings and targeting different groups at different stages with regard to the severity of their substance use disorder. The public health system is best placed to take the lead in the provision of effective treatment services for people affected by drug use disorders, often in close coordination with the social care services and other community services.

At the systems level it needs to be ensured that treatment services are:

- Available
- Accessible
- Affordable
- Evidence-based
- Diversified

When developing a comprehensive treatment system it is wise to allocate available resources and respond best to patient's needs. The key public health principle to apply is offering the least invasive intervention possible with the highest level of effectiveness and the lowest cost possible. This is an important principle when designing or reviewing a treatment system and taking into account the treatment standards.

2.2 Guiding Principles and Standards

Treatment of Substance Use Disorders is based on the following guiding considerations:

2.2.1 Treatment must be available, accessible, attractive, and appropriate for needs.

- Treatment services must match the needs of the individual patient at the specific phase of their disorder to include outreach, screening, inpatient and outpatient treatment, long-term residential treatment, rehabilitation, and recovery-support services.
- These services should be affordable, attractive, available in both urban and rural settings, and accessible with a wide range of open hours and the minimal wait time.
- All barriers that limit their accessibility to appropriate treatment services should be minimized.
- Services should not only offer addiction treatment, but also provide social support, protection and general medical care.
- The legal framework should not discourage the people affected from attending treatment programs.
- The treatment environment should be friendly, culturally sensitive and focus on the specific needs and level of preparedness of each patient, the environment that encourages rather than deters individuals from attending the program.

Standards:

1. Essential treatment services for drug use disorders should be available through organization of treatment interventions at different levels of health systems: from primary health care to tertiary health services with specialized treatment programs for drug use disorders.
2. Essential treatment services are in place that include: brief interventions, diagnostic

assessment, outpatient counselling, outpatient psychosocial and evidence-based pharmacological treatment of drug use disorders, outreach services and services for management of drug-induced acute clinical conditions such as overdose, withdrawal syndromes and drug-induced psychoses.

3. Essential treatment services for drug use disorders should be within reach of public transport and accessible to people living in urban and rural areas.
4. Low threshold and outreach services, as part of a continuum of care, are needed to reach the 'hidden' populations most affected by drug use, often non-motivated to treatment or relapsing after a treatment program.
5. Within a continuum of care, people with drug use disorders should have access to treatment services through multiple entry points.
6. Essential treatment services for drug use and drug-induced disorders should be available during a sufficiently wide range of opening hours to ensure access to services for individuals with employment or family responsibilities.
7. Essential treatment services should be affordable to clients from different socio-economic groups and levels of income with minimized risk of financial hardship for those requiring the services.
8. Treatment services should be gender-sensitive and tailored to the needs of women including specific child-care needs and needs in pregnancy.
9. Treatment services should provide access to social support, general medical care and referrals to specialized health services for the management complex co-morbid health conditions.
10. Treatment services for drug use disorders should be oriented towards the needs of served populations with due respect to cultural norms and involvement of service users in service design, development and evaluation.
11. Information on availability and accessibility of essential treatment services for drug use disorders should be easily accessible through multiple sources of information including internet, printed materials and open access information services.

2.2.2 Ensuring ethical standards in treatment services.

Treatment of drug use disorders should be based on the universal ethical standards – respect for human rights and dignity.

- This includes responding to the right to enjoy the highest attainable standard of health and well-being, ensuring non-discrimination, and removing stigma.
- The choice to start treatment should be left to the individual. Treatment should not be against the will and autonomy of the patient.
- The consent of the patient should be obtained before any treatment intervention.
- Accurate and up to date medical records should be maintained and the confidentiality of treatment records should be guaranteed. Registration of patients entering treatment outside the health records should not be permitted.
- Punitive, humiliating or degrading interventions should be avoided. The individual affected should be recognized as a person suffering with a health problem and deserving treatment similar to patients with other psychiatric or medical problems.

Standards:

1. Treatment services for drug use disorders should respect in all cases human rights and dignity of service users, and humiliating or degrading interventions should never be used.
2. Informed consent should be obtained from a patient before initiating treatment and guarantee the option to withdraw from treatment at any time.
3. Patient data should be strictly confidential, and registration of patients entering treatment outside the health records should not be allowed in all cases. Confidentiality

- of patient data should be ensured and protected by legislative measures and supported by appropriate staff training and service rules and regulations.
4. Staff of treatment services should be properly trained in the provision of treatment in full compliance with ethical standards and norms and human rights principles.
 5. Service procedures should be in place. Staff should adequately inform patients of treatment processes and procedures, including the right to withdraw from treatment at any time.
 6. Any research in treatment services involving human subjects should be subject to review by ethical committees. Participation of service users in research should be strictly voluntary with informed written consent.

2.2.3 Promoting treatment of drug use disorders by effective coordination between the criminal justice system, health and social services.

- Drug use disorders should be seen primarily as a health problem rather than a criminal behavior and wherever possible, drug users should be treated in the health care system rather than in the criminal justice system.
- Law enforcement, court professionals and penitentiary system officers should be appropriately trained to effectively engage with the treatment and rehabilitation efforts.
- If prison is warranted, treatment should also be offered to prisoners with drug use disorders during their stay in prison and after their release as effective treatment will decrease the risk of reoffending.
- Continuity of care after release is of vital importance and should be assured or facilitated.
- In all justice related cases, people should be provided treatment and care of equal standards to treatment offered in the general population.

Standards:

1. Treatment for drug use disorders should be provided predominantly in health and social care systems, and effective coordination mechanisms with criminal justice system should be in place and operational to facilitate access to treatment and social services.
2. Treatment of drug use disorders should be available to offenders with drug use disorders and, where appropriate, be a partial or complete alternative to imprisonment or other penal sanctions.
3. Treatment of drug use disorders as an alternative to incarceration or in criminal justice settings should be supported by appropriate legal frameworks.
4. Criminal justice settings should provide opportunities for individuals with drug use disorders to treatment and health care that are guaranteed in health and social care systems in a community.
5. Treatment interventions for drug use disorders should not be imposed on individuals with drug use disorders in criminal justice system against their will.
6. Essential prevention and treatment services should be accessible to individuals with drug use disorders in criminal justice settings, including prevention of transmission of blood-borne infections, pharmacological and psychosocial treatment of drug use disorders and co-morbid health conditions, rehabilitation services and linking with community health and social services in preparation for release.
7. Appropriate training programs for criminal justice system staff, including law enforcement and penitentiary system officers and court professionals should be in place to ensure recognition of medical and psychosocial needs associated with drug use disorders and support treatment and rehabilitation efforts.
8. Treatment of drug use disorders in criminal justice system should follow the same evidence-based guidelines, ethical and professional standards as in the community.

9. Continuity of treatment for drug use disorders should be ensured by effective coordination of health, social services in communities and criminal justice systems.

2.2.4 Treatment must be based on scientific evidence and respond to specific needs of individuals with drug use disorders.

- Evidence-based practices and accumulated scientific knowledge on the nature of drug use disorders should guide interventions and investments in treatment of drug use disorders.
- The same high quality of standards required for the approval and implementation of pharmacological or psychosocial interventions in other medical disciplines should be applied to the treatment of drug use disorders.
- Only the pharmacological and psychosocial methods that have been demonstrated to be scientifically effective or agreed upon by a body of experts should be applied. The duration and the intensity (dose) of the intervention should be in line with evidence-based guidelines.

Standards:

1. Resource allocation in treatment of drug use disorders should be guided by existing evidence of effectiveness and cost-effectiveness of prevention and treatment interventions for drug use disorders.
2. A range of evidence-based treatment interventions of different intensity should be in place at different levels of health and social systems with appropriate integration of pharmacological and psychosocial interventions.
3. Health professionals at primary health care should be trained in identification and management of the most prevalent disorders due to drug use.
4. In treatment of drug use disorders, health professionals at primary health care should be supported by specialized service health care providers at advanced levels of health care, particularly for treatment of severe drug use disorders and patients with co-morbidities.
5. Organization of specialized services for drug use disorders should be based on multidisciplinary teams adequately trained in the delivery of evidence-based interventions with competencies in addiction medicine, psychiatry, clinical psychology and social work.
6. The duration of treatment should be determined by individual needs and there should be no pre-set limits of treatment that can't be modified.
7. Training of health professionals in the identification, diagnosis and evidence-based treatment of drug use disorders should be in place at different levels of education and training of health professionals including university curricula and programs of continuing education.
8. Treatment guidelines, procedures and norms should be regularly updated in accordance with accumulated evidence of effectiveness of treatment interventions, knowledge about the needs of service users and research results.
9. Treatment services and interventions for drug use disorders should be adapted for relevance to the socio-cultural environment in which they are applied.

2.2.5 Responding to the needs of special subgroups and conditions.

- Groups with specific needs include but are not limited to adolescents, elderly, women, pregnant women, sex workers, sexual and gender minorities, ethnic and religious minorities, individuals involved with criminal justice system and individuals that are socially marginalized.
- Working with those special groups requires individualized treatment plans that consider their unique vulnerabilities and needs.

Standards:

1. The needs of special subgroups and conditions are reflected in service provision and treatment protocols, including the needs of women, adolescents, pregnant women, ethnic minorities and marginalized groups such as the homeless.
2. Special services and treatment programs should be in place for adolescents with substance use disorders to address specific treatment needs associated with this age. The services should be separate to prevent contacts with patients in more advanced stages of drug use disorders.
3. Treatment services and programs for drug use disorders should be tailored to the needs of women and pregnant women in all aspects of their design and delivery, including location, staffing, programme development, child friendliness and content.
4. Treatment services should be tailored to the needs of people with drug use disorders from minority groups. Cultural mediators and interpreters should be availed whenever necessary in order to minimize cultural and language barriers.
5. A package of social assistance and support in order to achieve means of sustainable livelihoods needs should be integrated into treatment programs for people with drug use disorders who are homeless, unemployed or lack social support.
6. Outreach services should be in place to establish contact with people who may not seek treatment because of stigma and marginalization.

2.2.6 Ensuring good clinical governance of treatment services and programs for drug use disorders.

- Treatment policies, programs, procedures and coordination mechanisms should be defined in advance and clarified to all therapeutic team members, administration, and target population.

Standards:

1. Treatment policies for drug use disorders should be based on the principles of universal health coverage, best available evidence and developed with the active involvement of key stakeholders including the target populations, community members (families), non-governmental organizations, religious organizations.
2. Written service policy and treatment protocols should be available, known to all staff and guide delivery of treatment services and interventions.
3. Staff working at specialized services for drug use disorders should be adequately qualified, and receive ongoing evidence-based training, certification, supervision and support to prevent burnout.
4. Policies and procedures for staff selection, recruitment, employment and performance monitoring should be clearly specified and known to all.
5. A sustainable adequate source of funding should be available and proper financial management and accountability mechanisms should be in place. The funding should include costs for staff education and evaluation.
6. Services for the treatment of drug use disorders should be intergrated into relevant general and specialized health and social services in order to provide a continuum of comprehensive care to the patients.
7. Adequate record systems should be in place to ensure accountability and continuity of treatment and care.
8. Service programmes, rules and procedures should periodically be revised on the basis of continuous feed-back, monitoring and evaluation processes, as well as the constantly updated data on the drug use trends in populations.

2.2.7 Integrated treatment policies, services, procedures, approaches and linkages must be constantly monitored and evaluated.

- A variety of services should be integrated in the case management of these patients, with the mainstreaming of primary health care delivery and multidisciplinary activities.
- A coordinating team should include psychiatric and psychological carers, municipality social services support workers, housing and job skills/employment providers, legal assistants, and specialised health care providers (HIV, Hepatitis, other infections).
- The treatment system must be constantly monitored, evaluated and adapted. This requires planning and implementation of services in a logical, step-by-step sequence that insures the strength of links between
 - a. policy
 - b. needs assessment
 - c. treatment planning
 - d. implementation of services
 - e. monitoring of services
 - f. evaluation of outcomes
 - g. quality improvements

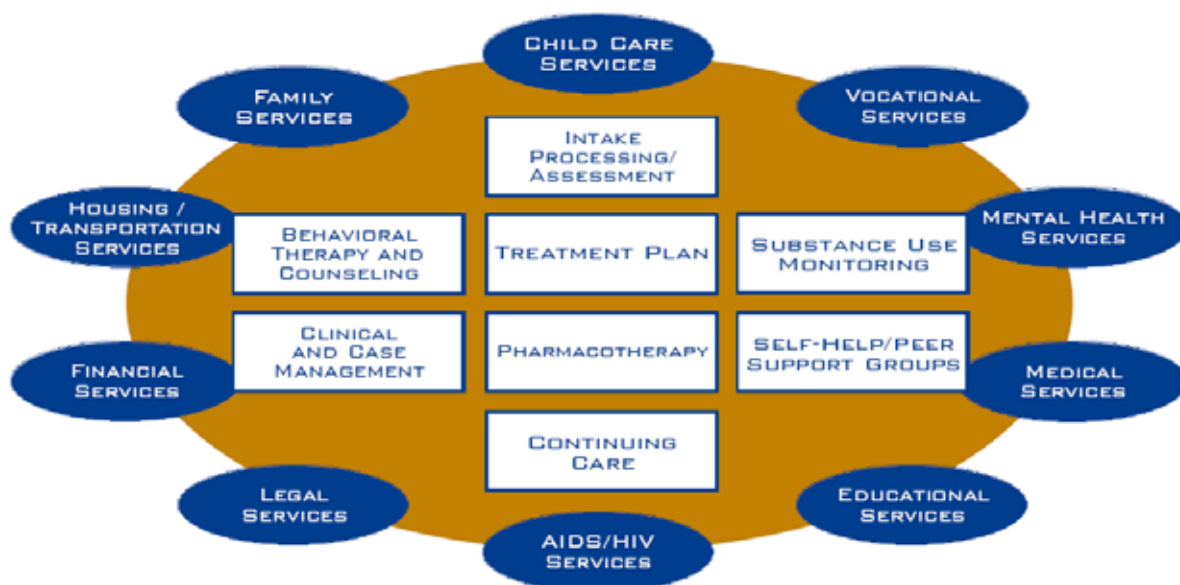
Standards:

1. Treatment policies for drug use disorders need to be formulated by relevant governmental authorities on the principles of universal health coverage, best available evidence and with active involvement of key stakeholders including the target populations, community members (families), non-governmental organizations, religious organizations.
2. Efficient and effective links between drug use prevention, drug dependence treatment, and harm reduction of drug use should be established and operational.
3. Treatment planning should be based on estimates and descriptions of the nature and extent of the drug problem, as well as on the characteristics of the population in need.
4. Roles of national, regional and local agencies in different sectors responsible for the delivery of treatment for drug use disorders and rehabilitation are defined and mechanisms for effective coordination established.
5. Quality standards for drug treatment services should be established and compliance required for accreditation.
6. Mechanisms for clinical governance, monitoring and evaluation should be in place including clinical accountability, continuous monitoring of patient health and well-being, and intermittent external evaluation.
7. Information on the number, type, and distribution of services should be availed and used within the treatment system for planning and development purposes.

2.3 Comprehensive management of Substance Use Disorders

The table below shows the components of a comprehensive management of substance use disorders.

Components of Comprehensive Drug Abuse Treatment



This spells out the stages a client is likely to engage in from the time of entry to the program until he/she exits.

Formalized in 1948, the Universal Declaration of Human Rights recognizes “the inherent dignity” and the “equal and unalienable rights of all members of the human family”. And it is on the basis of this concept of the person, and the fundamental dignity and equality of all human beings, that the notion of patient’s rights was developed. The right to health is a fundamental part of our human rights and right to live in dignity. This includes the right to the enjoyment of the highest attainable standard of physical and mental health as enshrined in the Kenyan Constitution.

Therefore:

- Health services, goods and facilities must be provided to all without any discrimination.
- All services, goods and facilities must be available, accessible, acceptable and of good quality.
- The right to health contains freedoms.
- The right to health contains entitlements.

The risks, side effects, and potential benefits of drug dependence treatment and the various steps and activities involved in the treatment process shall be explained to the patient. Patients shall be given a written consent to sign before any treatment is begun. Consent forms should be available in both English, Kiswahili or interpreted to those who can’t understand those languages.

All written materials shall be explained to all illiterate patients and a notation shall be placed in the file explaining exactly how the required information was given to the patient, when, and by whom.

Each patient of an outpatient/drop-in facility has the right to:

- Request permission to see his/her treatment plan and have all questions answered regarding the confidentiality of that treatment plan; and
- Insist on his/her prior written consent before release of any information, unless

otherwise authorized by law.

Medical or surgical procedures require written consent unless the patient is incapable of caring for him/herself. In the latter case, consent may be provided by the patient's guardian or next of kin. No patient may be placed involuntarily in seclusion or mechanical restraint unless necessary because of imminent physical danger to self/others and a medical practitioner so orders.

The risks, side effects, and potential benefit of different forms of treatment are to be explained to all patients. Members of staff are obliged to tell the patient the various steps and activities involved in each treatment option.

Upon admission, each patient should be given a copy of the treatment program's rules and regulations; these are to be explained to the patient. Patients should sign a statement indicating that he/she understands the rules; that statement should be kept with his/her record. Patients should be promptly appraised of any changes in the program rules.

If any patient violates program rules or regulations, the patient may be discharged, upon risk assessment to self and/or others. Upon discharge, the patient should receive a written statement explaining why he/she is being discharged. If the person has been involuntarily discharged, he/she may request that the decision to discharge be reviewed.

The phases of drug dependence treatment include screening, brief intervention, evaluation and assessment, treatment planning, medical and psychiatric management, psychosocial rehabilitation, and continuing of care.

2.3.1 Screening, brief intervention and referral to treatment

Screening and brief intervention efforts can be very useful in identifying people with substance use disorders (in non-specialist health settings, i.e. primary care, emergency care settings, hospitalized patients, ante-natal care settings, social welfare services, school health services, prison health services etc). These points of contact may be useful in leveraging health promotion activities and reducing negative health consequences of behaviors related to drug use.

Screening and brief interventions delivered in these settings may have a significant effect on enhancing motivation to change, changing substance use patterns, and, where indicated, linking individuals with higher risk substance use or substance use disorders to treatment.

2.3.1.1 Screening

Screening is usually defined as a preliminary assessment that indicates the probability that a specific condition is present. The primary goal of SBIRT is to detect health problems or risk factors before serious disease develops.

Personnel operating in different sectors (e.g., education, social services etc.) can be trained to efficiently administer validated, standardized screening tools as part of their workflow. Screening tools can be grouped in two categories: self-report tools (interviews, self-report questionnaires) and biological markers (breathalyzer, blood alcohol levels, saliva or urine testing, serum drug testing).

Self-report tools have the advantages of being physically non-invasive, inexpensive, and sensitive for the detection of possible problems associated with substance use.

Characteristics of a good self-report screening tool are:

- brief (10 or fewer questions)
- flexible

- easy to administer
- easy for the patient
- addresses alcohol and other drugs
- indicates the need for further assessment or intervention when appropriate
- has a clinically acceptable degree of sensitivity and specificity

The accuracy of self-report can be enhanced when the patient is given written assurances of confidentiality, when the patient is interviewed in a setting that encourages honest reporting, when the patient is asked clearly worded and objective questions, and when the patient is provided with memory aids (calendars, response cards). Additionally, self-report can clearly be misrepresented if the patient is under the influence of drugs when making the report, but this should not preclude the initial screening process.

Biological markers may be useful when a patient is not able to respond to an in-person interview but information is required to reach a differential diagnosis (i.e. an unconscious patient in intensive care). For conscious patients, it is preferable to ask about drug use. Providers should use validated screening tools to identify potentially hazardous substance use and associated risk behaviors such as HIV-risk behaviors, violence potential, suicidal ideation, and reckless driving. The screening tools should be brief and provide clear guidance for service providers.

When selecting which screening tool to use, practitioners should select a tool that is standardized and empirically validated for use with the population being served. When screening results indicate a potentially serious problem, further assessments should be performed by specialized substance use disorder professionals upon referral to ensure adequate follow-up.

The ASSIST (Alcohol, Smoking and Substance Involvement Screening Test) has been developed by the World Health Organization. It consists of 8 questions asking about alcohol, tobacco and drug use (including injecting drug use). The questions give information about hazardous, harmful or dependent use including injecting drug use. It has been especially developed for a primary care setting and is recommended in an interview format (WHO, 2010)

2.3.1.2 Brief Intervention

According to the Lexicon of alcohol and drug terms (WHO 1994), a brief intervention is “a treatment strategy in which structured therapy of short duration (typically 5-30 minutes) is offered with the aim of assisting an individual to cease or reduce the use of a psychoactive substance or (less commonly) to deal with other life issues. It is designed in particular for general practitioners and other primary health care workers.”

Brief interventions often include screening people to identify hazardous and harmful substance use, as well as providing simple advice about associated health problems in a non-confrontational way, and to motivate and support the client/patient to think about behavior change in relation to their use of psychoactive substances. Accurate assessment is the key to detecting problems that may arise from psychoactive substance use.

If it is available and necessary, the patient may be referred for 1-2 more additional sessions, or followed-up to see if further treatment is necessary.

The healthcare provider or practitioner providing brief intervention services should be trained in using motivational techniques to build rapport with the person, avoid defensiveness, and enhance intrinsic motivation to cease risky substance use before more severe problems develop. Brief interventions are a client-centered and strength-based approach which empowers the patient to take responsibility for the change process.

The components of effective brief interventions can be described in the **FRAMES** framework (Miller and Rollnick, 2002):

- **F**eedback is given to the individual about personal risk or impairment
- **R**esponsibility for change is placed on the individual
- **A**dvice to change is given by the provider
- **M**enu of alternative self-help or treatment options is offered
- **E**mpathic style is used in counseling
- **S**elf-efficacy or optimistic empowerment is engendered

There are several basic steps in an effective brief intervention. Initially the practitioner will introduce the issue of drug use in the context of the patient's health and wellbeing, in context with the challenge that brought them to this current session.

Since the patient is placed at the center of the discussion, the practitioner will listen and use strategies such as summarizing and reflection to provide feedback. The patient will be asked to talk about change and to set realistic goals. At the end of the session, the practitioner will summarize and provide positive feedback to the patient, empowering them to continue to take responsibility for changing their behaviors.

2.3.1.3 Referral to Treatment

Persons who are screened and subsequently assessed as having a clinically significant substance use disorder or serious co-occurring condition should be referred immediately for treatment to the most appropriate facility or practice. In making such referrals, professionals should be trained carefully to use techniques proven to increase follow-through with the referral.

These include strategies such as making the appointment at the treatment center with the patient present, use of 'patient navigators' who can accompany the patient to the treatment center, following up with the patient regarding enrollment in the program, and other 'warm handoff' techniques. Initiating and providing drug treatment at the setting where SBIRT is delivered is another important strategy to improve outcomes in SBIRT with persons with drug use disorders.

2.3.2 Evaluation

The assessment will include a drug history, physical examination by the doctor and sufficient information to determine dependence. A full assessment should be carried out by a qualified health worker before any decision to prescribe is taken in case pharmacological intervention is indicated. At assessment clients must be made aware of the different treatment options available. This will include making a diagnosis, assessments with various assessment tools and treatment planning

2.3.2.1 Diagnosis

There are two internationally accepted diagnostic criteria that cover drug dependence: the eleventh revision of the **International Classification of Diseases (ICD 11)** published by the World Health Organisation (WHO), and the fifth edition of the **Diagnostic Manual of Mental Disorders (DSM V)** published by the American Psychiatric Association.

According to DSM V:

The essential feature of a substance use disorder is a cluster of cognitive, behavioural, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems. An important characteristic of substance use disorders is an underlying change in brain circuits that may persist beyond detoxification, particularly in individuals with severe disorders.

The behavioural effects of these brain changes may be exhibited in the repeated relapses and intense drug craving when the individuals are exposed to drug-related stimuli. These persistent drug effects may benefit from long-term approaches to treatment. Overall, the diagnosis of a substance use disorder is based on a pathological pattern of behaviours related to use of the substance.

DSM V SUBSTANCE USE DISORDER DIAGNOSTIC CRITERIA

1. Taking the substance in larger amounts and for longer than intended.
2. Persistent desire or unsuccessful efforts to cut down or quit substance use.
3. A lot of time is spent obtaining, using or recovering from the substance.
4. Craving or a strong desire to use the substance.
5. Repeatedly unable to carry out major obligations at work, school, or home due to substance use.
6. Continued use despite persistent or recurring social or interpersonal problems or made worse by substance use.
7. Stopping or reducing important social, occupational or recreational activities due to substance use.
8. Recurrent use of the substance in physically hazardous situations.
9. Consistent use of the substance despite acknowledgement of persistent or recurrent physical or psychological difficulties from using the substance.
10. Tolerance as defined by either:
 - a. Need for markedly increased amounts to achieve intoxication or
 - b. Desired effect or markedly diminished effect with continued use of the same amount.
11. Withdrawal manifesting as either:
 - a. Characteristic with syndrome
 - b. The same (or closely related) substance is used to avoid withdrawal.

Interpretation

Mild Substance Use Disorder: 2-3 symptoms

Moderate Substance Use Disorder: 4-5 symptoms

Severe Substance Use Disorder- 6 or more symptoms

DSM-5 provides additional specifiers as follows:

- Early remission defined as “at least three months but less than twelve months” without meeting substance use disorder criteria (except for craving).
- Sustained remission defined as at least “twelve months without meeting criteria” (except craving).
- In controlled environment
- On maintenance therapy

2.3.2.2 Assessment

A good assessment is essential to the continuing care of the patient. Not only can it enable the patient to become engaged in treatment but it can begin a process of change even before a full assessment is complete. Assessment skills are vital for all members of the multidisciplinary team, including drugs workers, psychologists, nurses and doctors.

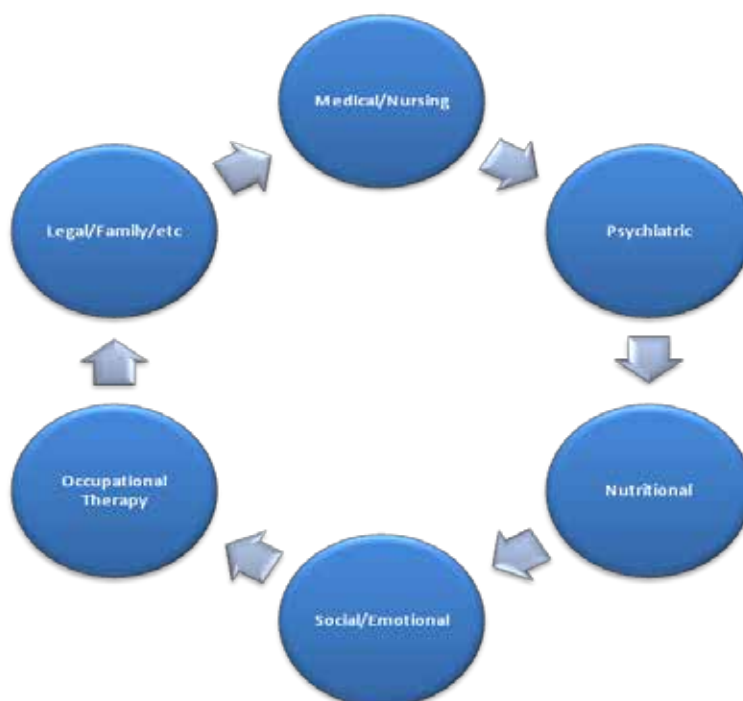
This entails clerkship, physical examination and a diagnosis made by a psychiatrist, a physician, a clinical officer, a nurse and/or a trained counselor. Effective interviewing techniques by clinicians and covering key areas are important in that, patients are assisted in confronting their addiction and getting their views on behavior change.

Basic requirements like blood pressure machines, stethoscopes and thermometers are

important. A good and reliable laboratory service is required to screen for HIV, hepatitis B and C, and sexually transmitted infections, and to perform urine tests, blood alcohol levels and liver function tests such as gamma glutamyl transpeptidase (GGT).

A comprehensive assessment should include:

- Screening for drug dependence
- Identification of treatment needs: done through a series of multidisciplinary assessments as shown in the figure below. The more intensive the required intervention, the wider the variety and intensity of assessments.
- Intake evaluation: documents the patient's medical condition and medical history and includes an analysis of the patient's current neurological and psychological status. The intake evaluation is often the basis for a decision to admit the patient or to make a referral to a more appropriate emergency or psychiatric program. A standardized intake format will be used.



Multidisciplinary Assessment

Patient management will be provided either as:

1. Out-Patient Treatment
 - High Intensity Interventions
 - Mid To Low Intensity Interventions
2. In-Patient/ Residential Treatment
 - Short Term In-Patient/ Residential Treatment
 - Long Term In-Patient/ Residential Treatment

A standardized intake format will be adopted in assessing patients in all levels of care. A signed informed consent and treatment contract on the risks of treatment are important in all levels of care.

i) Medical Assessment

This helps to determine whether patients have a current or imminent medical problem that needs attention. These include related problems such as withdrawal syndrome, anemia, HIV/AIDS, hepatitis B and C or medical conditions unrelated to the addiction (perhaps ignored for many years), abscesses, malnutrition, substance induced psychoses among others.

Physical examination:

- Check for needle track marks, skin abscesses, and signs of withdrawal or intoxication.
- Determine the presence of any complications of drug use such as viral hepatitis, bacterial endocarditis, HIV, tuberculosis, septicaemia, pneumonia, deep vein thrombosis, pulmonary emboli, abscesses and dental decay.

ii) Psychiatric Assessment

Psychiatrists and psychologists may conduct various psychological tests during the initial assessment phase of treatment. Some tests are used to confirm and assess the presence of severity of substance use disorders. These are generally questions and answers, self report tests and/or structured interviews. It is important to note that psychiatric disorders can co-exist with use of alcohol and other drugs, especially increased risk of suicide and self-harm. Drug use due to its psychoactive component, can cause hallucinations, depression or anxiety, either during use or as part of withdrawal.

The psychiatric examination should address the following but not limited to:

- General appearance and behaviour
- Mood and affect
- Thoughts including delusions and risk of self-harm
- Perception including hallucinations, common with stimulant and hallucinogens use.
- Cognitive states- concentration, attention, consciousness and memory
- Appendix 5- Brief Mental State Examination

iii) Nursing Assessment

The aims of the nursing assessment are to:

- Triage to determine need for emergency intervention
- determine type of drugs used,
- determine problems associated with drug use
- assess risk
- identify medical, mental, social and other needs
- referral to the laboratory for baseline investigations
- determine client's motivation
- explore client's treatment requests and expectations
- Inform and explain the treatment options available to clients, and determine those most suited to their needs.

iv) Nutritional Assessment

Some patients may have significant nutritional deficits that may need to be corrected shortly after assessment before proper treatment is commenced.

The following should be checked:

- Body mass index(BMI)
- Vitamin deficiency
- Anaemia (especially megaloblastic anaemia in alcoholics)
- Micronutrient deficiency

v) Psychosocial Assessment

Various social and emotional problems may have played a role in people's initial drug use, as well as in their continued drug use. Identification of these issues can be important for relapse prevention. Treatment Plans should address poor skills and encourage the use of existing positive skills for personal growth. Individuals with multiple social problems need to be linked into the appropriate local support networks.

i) Family Assessment

This may be done through interview with other family members to obtain a clearer understanding of the individual's family dynamics such as:

- Effect of addiction on the functioning of the family
- Effects of family structure on the individual's addiction.
- Family readiness and support for treatment
- Family understanding of the problem
- Signs and symptoms of co-dependence

vii) Occupational Assessment

Assessment is required on the following areas:

- Occupational performance on his/her profession or employment
- Mental ability to follow instructions in occupational functioning
- The acceptance to lead a productive and useful life
- Individuals ability to perform tasks in their daily living and work
- Prevocational exploration and training on different skills.
- Achievement of independent, productive and satisfying life.

viii) Recreational, Stress, and Leisure Assessment

There is need to determine an individual's:

- Level of stress
- Level of social skills
- Ability to trust others
- Healthy interests
- Ability to co-operate with others
- General level of physical activity and exercise
- Previous drug-free experiences of having healthy fun

ix) Legal history/assessment

Legal problems can become a potent area of stress and anxiety, and they can be identified as subjects for discussion in a therapeutic setting.

Some people have legal problems hence assess for any charge on:

- illegal selling of drugs
- using prescription drugs, not prescribed for a particular condition
- Stealing items or embezzles money to support their addiction.
- not paying taxes
- alimony
- assault

x) Other assessment

These shall depend on the individual client's needs

2.3.2.3 Assessment Tools

These tools are used to collect data on key behaviors including drug use, HIV risk behavior, criminal activity, physical and psychological health and social functioning. Some of the tools that can be used in treatment settings and need to be availed at the treatment centres include:

- **The Addiction Severity Index (ASI):** Semi-structured interview designed to address seven potential problem areas in substance use patients: medical status, employment and support, drug use, alcohol use, legal status, family/social status, and psychiatric status. It can be administered by a trained staff member.
- **The Addiction Severity Index – LITE (ASI-LITE):** shortened version of the ASI
- **ASSIST:** the Alcohol, Smoking and Substance Involvement Screening Test is a brief

screening questionnaire developed by WHO and an international team as a simple method of screening for hazardous, harmful and dependent use of alcohol, tobacco and other psychoactive substances.(APPENDIX 1)

- The **CAGE Test:** Screening test for alcohol dependence. (Cut down, Anger, Guilt, Eye-opener) (APPENDIX 2)
- **AUDIT:** Alcohol Use Disorders Identification Test.(Appendix 3)
- **COWS:** Clinical Opioid Withdrawal Scale(Appendix 4)
- **MINI, SCID, CIDI-SAM** – Structured interviews for psychiatric disorders, useful for both establishing substance use disorders and identifying co-morbid psychiatric disorders.
- **Others Assessment tools:** Used depending on the substance used

2.3.2.4 Treatment Planning

In planning treatment systems, resources should be distributed in a way that delivers effective treatment to as many people as possible. Quality of treatment should be consistent regardless of how patients enter treatment.

A treatment plan is a written description of the treatment to be provided based on the patient's identified needs and goals and sets interventions to meet those goals and includes the anticipated course and outcome. The treatment plan, developed with the patient, establishes goals based on the patient's identified needs and sets interventions to meet those goals. It specifies the needs of the individual patient and how they are going to be met. The plan is then monitored and revised periodically as required to respond to the patient's changing situation.

A treatment plan should be SMART and should focus on all the following aspects:

- Drug and alcohol use:
- Physical health:
- Psychological health:
- Criminal involvement and offending
- Social functioning
- Childcare issues, including parenting, pregnancy, child protection:

Steps in developing a treatment plan.

- I. Assessment
- II. Diagnostic summary
- III. Developing a problem list: What is the nature of the problem?
- IV. Developing goals and objectives: Desired change with short term and long term goals defined
- V. Developing interventions: Describe how goals will be achieved, Define the process either individual or group therapy, Frequency of client/ provider contact, State the responsible provider, Indicate the time for reevaluating the treatment progress (at least every three months)
- VI. Discharge and follow up
- VII. Referral for needs that require further expertise.

Clinicians will need to be able to track progress with patients around their range of needs and record progress in the care plan. There may be several clinicians involved in the patient's treatment – these should be named in the care plan along with a clear identified lead clinician or case manager.



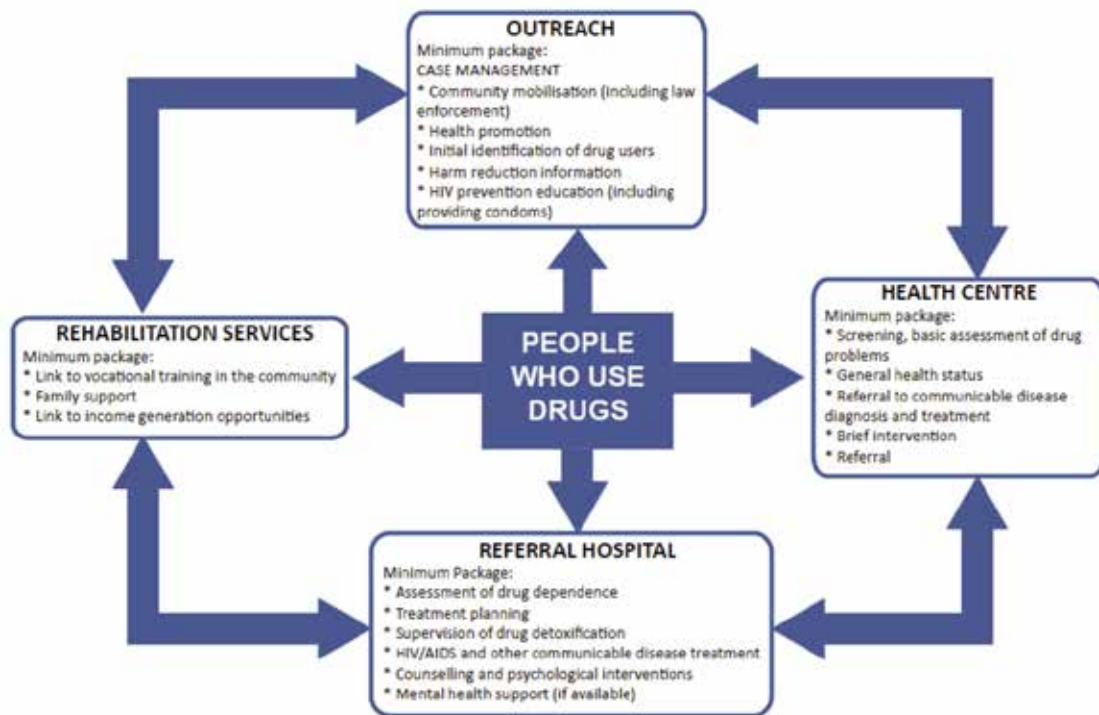
CHAPTER 3

3.0 COMPREHENSIVE MANAGEMENT OF SUBSTANCE USE DISORDERS

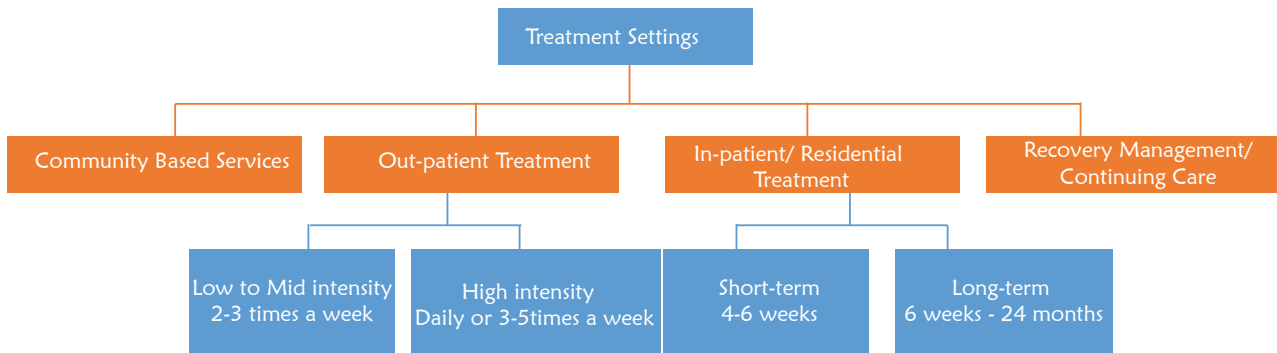
Substance use affects many aspects of the patient’s life and therefore a comprehensive continuum of services is needed to promote recovery and enable the patient to fully integrate into society. The treatment system for substance use disorders therefore comprises of multiple service components both pharmacological and behavioral interventions, delivered at community and health facility settings.

Evidence consistently shows that substance use disorder management interventions and treatment settings impacts on health, socioeconomic development, human rights, peace and security outcomes.

The figure below shows a model of case-management and treatment and care for people who use drugs and are affected by drug use disorders:



The different treatment settings are as shown below:



3.1 COMMUNITY BASED SERVICES

3.1.1 Definition

Community refers to the people living in one particular area or people who are considered as a unit because of their common interests, social group, or nationality.

Outreach services are an activity of providing services to any populations who might not otherwise have access to those services. It aims at providing information and harm reduction interventions to those that are not in touch with drug treatment services. Harm reduction include policies and programs which attempt primarily to reduce the adverse health, social and economic consequences of mood altering substances to people who use substances, their families and their communities.

3.1.2 Setting

Community-based services refer to activities and organizations that access and engage with people who use drugs in the community, to improve their health and wellbeing and reduce the risks of drug use. This strategy is different from intervening with populations who are already in contact with clinics or other care service modalities.

Outreach workers and peer supporters typically carry out a set of specific education strategies devised and implemented by members of a subculture, community or group of people for their peers, where the desired outcome is that peer support and the culture of the target group is utilized to effect and sustain change in behavior.

Models of outreach work have changed considerably over time. Originally, outreach was designed to rely on former and/or current drug users to reach hard to reach or hidden populations who were not in treatment because treatment was either unavailable, inaccessible, or simply unwilling to make use of the existing services. More recent efforts have included other members of the community and spaces drug users occupy to support access to services. Outreach efforts also acknowledge the role of social network dynamics among individuals experiencing drug use disorders and recognize that these networks are important determinants of their risk of negative health and social outcomes and can utilize them as a leverage point to influence and promote healthful behavior. Many outreach models use a mixture of targeted, individual interventions and also make use of network-based interventions to reach their goals.

3.1.3 Staffing

The members of staff offering community based outreach services should be trained and certified in substance use disorder management. These include:

- Persons in recovery
- Outreach workers
- Peer educators
- Family of PWUD
- Volunteers
- Health care workers
- Law enforcement officers
- Religious leaders
- Community leaders

3.1.4 Treatment interventions

Community based services primarily target individuals who are engaged or exposed to harmful drug use and who are not currently receiving treatment for drug use disorders including those affected by other’s drug use (e.g., sexual partner, needle-sharing partners, significant others etc.).

Community based programs should be able to provide at minimum the following ‘core services’:

INTERVENTIONS	COMPONENTS
Biomedical	<ul style="list-style-type: none"> • Providing a first-line screening of health related issues and facilitating a referral if additional services are needed. • Emergency care services related to overdose • HIV or hepatitis testing and immunizations (hepatitis B) • Screening for respiratory tract infections, urinary tract infections, skin disorders, tuberculosis, sexually transmitted diseases, infections including abscesses and ulcers, injuries, and dental problems. • Screening for mental health problems
Behavioral	<ul style="list-style-type: none"> • Education on drug-effects and risks involved in drug use • Screening for substance use disorders • Brief Intervention to motivate change in substance use • Needle exchange and condom distribution
Structural	<ul style="list-style-type: none"> • Provision of basic support (safety, food, shelter, hygiene and clothing) • Referral to substance use treatment • Assisting PWUDs in managing administrative aspects of life (i.e. paperwork necessary for government benefits – National Identity Cards, NHIF Cards etc.)

Community based services can be delivered through various modes and types of interventions as shown in the table below:

MODES OF DELIVERY FOR COMMUNITY BASED SERVICES
<ul style="list-style-type: none"> • Individual counseling • Group counseling • Awareness programs • Testing for communicable diseases • Harm reduction interventions • Brief Interventions: Pharmacological and non pharmacological interventions • Personal skill development • Referral and linkage to other treatment services

3.2 OUT-PATIENT TREATMENT

3.2.1 Definition

This is treatment and care offered to people who use substances in a non-residential setting. It is most appropriate for:

- Individuals who are highly motivated and do not require close supervision for their treatment of substance use disorder.
- Patients with mild to moderate substance use disorders
- It may also be recommended to persons who do not have access to residential treatment services.
- The most suited clients are those with good social support and resources both at home and in the community to enable them to access the care.
- As a continuation of care after inpatient treatment
- Persons who are unable to afford inpatient care
- Those unable to commit to inpatient care due to occupational or social circumstances

There is need for provision of 24-hour emergency services and contact information to the patients and their relatives.

Outpatient treatment is ideal for providing long-term maintenance care, which entails both psychosocial and pharmacological interventions. The services vary in terms of their components and intensity and subsequently determine the specific target population. They range from health education efforts to treatment centers providing continuing care and recovery management.

3.2.2 Goals

The main goal of outpatient treatment is to help patients stop or reduce use of alcohol and other drugs hence manage harms associated with substance use which include:

- reducing, halting or reversing the medical, psychiatric and social complications associated with drug use
- reducing the risk of relapse to drug use
- improving their personal and social functioning
- increasing accessibility to treatment and health care, especially for individuals who are severely affected but decline inpatient/ residential treatment as the initial step of intervention.

3.2.3 Staffing:

In order to provide comprehensive continuous care for patients in an outpatient setting, the staffing should include:

- A medical doctor or trained clinician
- Addiction counselors
- Nurses
- Psychiatrists and/ or psychologist where available
- Social workers
- Outreach workers/case managers

3.2.4 Types of interventions

The outpatient treatment programs depend on the level of intensity as per the patients' needs. These include:

- high intensity
- mid to low intensity

COMPONENT	MID to LOW INTENSITY	HIGH INTENSITY
Contact hours	2-3 days a week	Daily or 3-5 days a week

3.2.4.1 High Intensity Interventions

These are programs which require frequent interactions with the patients, either daily or 3 to 5 days a week for 2-4 hours. This level of care allows greater access to individual, group and family therapy, therapeutic exercises and drug free recreational activities. It addresses issues such as nutrition, emotional wellbeing, stress management, assertiveness, relationships and relapse prevention. It also increases bonding among peers in treatment.

Their components and activities include:

- Comprehensive bio-psychosocial assessment of the new patient
- Treatment plan which best addresses the needs of the patient
 - Voluntary participation; patient is able to influence their care
- Medication assisted detoxification from alcohol and other drugs, if indicated
- Initiation of maintenance medication, like in the case of opioid dependence
- Contact with family and significant others to engage them in ongoing treatment
- Pharmacological treatment for co-occurring medical and psychiatric disorders
- Behavioral and psychosocial treatment for addiction and co-occurring psychiatric disorders
- Treatment contract which clearly outlines all treatment procedures, services and other policies and regulations as well as the program's expectation of the patient
- On-going evaluation of the patient's progress in treatment and continuous clinical assessment that is built into the program
- Discharge planning with relapse prevention and continuing care strategies for the period after out-patient treatment, including maintenance medication if indicated, an appropriate level of psychosocial treatment for the addiction, and on-going treatment for co-occurring medical and psychiatric problems.

3.2.4.2 Mid to Low Intensity Interventions

These involve less contact hours (2 to 3 days a week) with the patient. It may also involve weekly group support sessions, individual counseling or health and drug education. It is recommended for patients who do not have intense treatment needs, are stable enough to be managed in the community, and are probably employed or in school/college. These programs are usually scheduled around work and school activities in order to accommodate them. The health care professionals administer regular assessments of the patient's alcohol and drug use, physical and mental status.

There is need to work with other allied care professionals, to offer integrated services such as HIV, Viral Hepatitis, Tuberculosis and Sexually Transmitted Infections treatment. This co-ordination should also enable the patient to access services at relevant psychiatric hospitals if inpatient care is necessary such as in cases of psychosis, suicidality and medical detoxification. Of great importance to the patient is collaboration with social support and other agencies such as education, employment, welfare, housing, social networking, legal assistance and support for people with disability.

3.2.5 Models of delivery of out-patient treatment

The best model uses a combination of both pharmacological and psychosocial interventions to reduce both substance use and related harms and to improve quality of life. This is referred to as psychosocially assisted pharmacological treatment and gives the patient a comprehensive range of services to manage various problems affecting them across several life domains. Care components need to be tailored to meet the needs of each patient.

3.2.6 Recovery Management and Social Support

These include various activities that promote and strengthen internal and external resources to help affected individuals voluntarily resolve problems related to alcohol and other drug use and actively manage the vulnerability to recurrence of such problems.

Some of the activities are already present in the patient's home, neighborhood and community while others can be developed. Some of the factors and activities that increase social integration and improve chances of stable remission from substance use disorders and maintenance of recovery include:

- A supportive partner and a network of family members and friends that can monitor the stability of recovery, abstinence from drugs and compliance with treatment
- Stable accommodation
- Meaningful work with appreciation in the work-place that replaces stigma and discrimination
- Engagement with individuals and social networks of friends and workmates that have abstinence-oriented norms and are supportive of recovery goals
- Political, humanitarian and spiritual involvement that provides a way to attribute meaning to life's stressors and develop a stronger purpose in life
- Strengthening individual's resilience, self efficacy and self confidence to manage daily challenges and stress while maintaining commitment to recovery and avoiding relapse to substance use
- Increased social participation and integration in educational and vocational pursuits, including volunteering or community involvement
- Remediation of legal and financial problems
- Active involvement in self-help, religious or other support

3.2.7 Discharge, Aftercare and Referral

- There are defined criteria for the expulsion of patients due to violation of treatment service rules, violence, continued alcohol and other drug use.
- There are defined criteria for the management of specific risk situations such as intoxication/ overdose or suicide risk
- There is need to explore care plans with alternative pathways in the event of partial or complete failure of the original plan or expulsion from drug treatment services

3.3 IN-PATIENT/ RESIDENTIAL TREATMENT

3.3.1 Definition

Inpatient treatment setting is an environment whereby 24 hour care is available to manage the symptoms and complications likely to occur in the context of drug withdrawal symptoms. Inpatient setting facilitates cessation of drug use and management of drug withdrawal syndrome. It allows for monitoring and stabilization of relevant physiological and emotional indicators as well as temporary separation of the patient from the environment of alcohol and other drugs use.

3.3.2 Indications

In-patient / Residential treatment is recommended for the following persons:

- Patients preference
- Severe substance use disorder as defined in DSM V
- Previous outpatient treatment with relapse
- Poly substance dependence
- Co-occurring mental illness, especially with suicidal risk
- Patients with poor psychosocial support
- Patients with moderate to severe medical co-morbidity
- Recurrent episodes of drug related overdose
- Pregnant women may also benefit from in-patient treatment

Whereas there are options for in-patient treatment of substance use disorders, there are major limitations due to cost implications and accessibility. A decentralized out-patient treatment setting integrated within the primary health care system is most favored.

3.3.3 Documentation

Written or electronic records of all assessments should be confidential and kept in a secure location, only available to the patient and the staff directly involved in treatment.

Minimum documentation includes:

- A consent to treatment and agreement to follow program rules to be signed by new residents once they are accepted into a program
- Signed confidentiality and ethics policy
- Appropriate treatment and management plans for each resident, developed with input from a treatment team and including the patients input
- Resident records updated regularly with details of treatment, progress and any changes to the original goals
- A completion summary of the resident's record at the end of the program)advise the resident of its contents)

3.3.4 Safety issues

All residential treatment programs must provide a safe environment to its staff and residents to assure a psychologically and physically safe living and learning environment. The physical environment of the program where residents stay for many months is important. It should look more like a home, rather than a hospital or a prison.

Abstinence from alcohol and drugs should be required and assured. However, psychoactive medication used under medical supervision to treat psychiatric or addiction disorders such as methylphenidate, antidepressants, methadone or buprenorphine should not be discontinued unless it is medically indicated. Procedures for the dispensing and administering of prescribed medication should be in place.

All residential treatment programs must have a patients charter, which should be adhered to. Programs may choose to implement a policy that includes regular toxicology screening

with additional screening on returning from the pass outside the facility and when drug use is suspected.

Procedures to report unsafe incidents such as physical or sexual abuse should be in place. There should be clear procedures for responding to breaches of program rules and values, with differing levels of response to reflect the specific circumstances. Contact with visitors should be monitored or supervised, and possibly restricted, particularly in early stages of treatment.

3.3.5 Treatment settings

These are:

- Short Term In-Patient/ Residential Treatment
- Long Term In-Patient/ Residential Treatment

3.3.5.1 Short Term In-Patient/ Residential Treatment

3.3.5.1.1 Overview

This refers to care in a therapeutic facility whereby 24 hour care is available to manage the symptoms and complications likely to occur in the context of drug withdrawal syndrome. The length of stay ranges from 1 to 4 weeks, depending on the local practices and clinical need. It provides a temporary respite for patients with alcohol and other drug use disorders, while minimizing the discomfort of the cessation of substance use.

There is need for higher degree of medical supervision in short-term inpatient treatment than in long-term inpatient treatment due to the potential health risks related to acute withdrawal symptoms and their treatment.

3.3.5.1.2 Goals

The primary goals of short-term inpatient treatment are:

- Stabilization of the patient's physiological and emotional state
- Separation of the client from the environment in which hazardous substance use takes place
- Provision of safe and compassionate reduction of withdrawal symptoms, if present
- Engagement and motivation of the client to further treatment
- Initiation of maintenance medication treatment where applicable
- Initiation of the next stage of care planning and engagement into an appropriate form of continuing rehabilitative care, for patients who express an interest

Patients most suited for short term inpatient treatment include:

- potentially severe withdrawal syndrome following cessation of alcohol and other drug use
- patients whose current pattern of alcohol and other drugs use is causing a significant risk of harm to them
- significant health and social problems related to their alcohol and other drugs use
- patients who require separation from the environment in which alcohol and other drug use has been occurring

3.3.5.1.3 Factors to consider when opting for short-term inpatient treatment

Type of substances being used and likelihood of severe withdrawal syndrome – alcohol, sedative and opioid withdrawal can be severe and is highly likely for people using high doses over extended periods of time.

Severity of substance use disorder – ICD criteria can be used to determine severity by summing the number of criteria met and considering the severity of each criterion. Scales such as severity of dependence scale can be used.

Severity of co-occurring medical and psychiatric conditions – Psychiatric disorders such as depression, anxiety, post-traumatic stress disorder, schizophrenia or other psychotic disorders are associated with increased severity of existing substance use disorder and may interfere with engagement in treatment. Some psychiatric disorders such as depression, anxiety and psychosis may be caused by substances and resolve when substance use is stopped.

Short-term inpatient treatment provides an opportunity to observe whether the psychiatric symptoms are resolved when abstinence from substances is achieved, and to initiate medical or psychological treatment for disorders that persist after cessation of the substance.

A comprehensive assessment of the patient is administered on entry into the treatment program. The patient's medical history is taken, to find out acute or chronic disease and related medication as well as routine documentation of infectious diseases like HIV, Tuberculosis, Hepatitis B and C among others.

Past treatment experiences - A history of prior attempts to enter treatment is useful in designing a strategy that recognizes and can build on past successes and ways in which treatment may be better tailored to a patient's individual needs.

3.3.5.1.4 Treatment models used

Treatment models include a combination of pharmacological and psychosocial interventions.

3.3.5.1.5 Development of the treatment plan to follow short-term in-patient treatment

Entry and engagement with a short-term treatment centre is an important step in achieving better states of health when an individual has a substance use disorder. Associated health care professionals and their allies work together to provide patients/clients with the necessary resources, treatment and care to manage the different challenges and barriers they may face in achieving better health. Maintenance of sustainable healthy behavior after the patient/client leaves the treatment centre is very important as the risk of relapse and overdose increases significantly immediately after discharge.

The effective treatment plan for follow up should include several strategies to maximize the chances that the patient will successfully transition to the next level of care and will have maximal chance to maintaining successes in the residential treatment primarily to sustain medical and psychological stability and will remain in abstinence (relapse prevention focus of treatment).

The following treatment dimension needs to be considered when planning a discharge from short-term in-patient/residential to outpatient treatment or to a long-term in-patient/residential program:

Availability of social support:

This is important in promoting abstinence or reduction in alcohol and drug consumption and subsequently promoting recovery. An individual's social network may be influential to their patterns of consumption of alcohol and other drugs. Individual involved in short-term in-patient treatment should be educated and made aware of the different factors that may be contributing to their hazardous use of substances and equipped with different strategies to create and maintain an environment that promotes health.

Long term medication:

In the case of opioid dependence, the plan should almost always include long term maintenance on medication such as, Methadone, Buprenorphine or extended-release Naltrexone. Opioid agonists (methadone and buprenorphine) reduce drug use, crime and the risk of dying from opioid dependence, by approximately two thirds. The opioid antagonist, naltrexone, has been shown to be more effective than placebo. These medication have strong evidence of efficacy including relapse prevention after residential treatment. Ideally, medication should be started during residential stay, to be continued at the out-patient medication maintenance program.

Follow-up care:

Psychosocial care for substance use disorders needs to continue after short-term residential treatment. For some patients with greater levels of addiction severity and lack social support, referral to long term residential treatment is indicated after a short-term residential stay. Patient with lower severity of addiction and better social support, out- patient treatment is a logical next step.

Healthcare and social system navigation support should be present to address aspects of patient/client's life domains that may affect their capacity to maintain their treatment successes, vocational training, stable housing, among others.

An important goal for short-term residential treatment is to identify and initiate treatment of co-morbidities. Referrals need to be arranged to continue this treatment after discharge from short-term residential treatment. An ideal arrangement is for treatment for co-morbid medical or psychiatric disorders to be offered within the addiction treatment program. Patients are more likely to stay engaged in treatment if all treatment is integrated at one location.

Treatment activities in short-term in-patient/residential treatment programs for people with substance use disorders

- Comprehensive biopsychosocial assessment of the patient/client
- Treatment plan which best addresses the needs of the individual
- Medication-assisted detoxification, if indicated
- Strategy to foster patient's motivation for change
- Contact with individuals that are of significance in patient's social network to engage them in the treatment plan
- Initiation of behavioral treatment for co-morbid physical and psychiatric disorders, if time and resources allow
- Ongoing evaluation of patient's progress in treatment, and continuous clinical assessment that is built into the program
- Discharge planning with relapse prevention and continuing care strategies for the period after residential treatment, including maintenance medication if indicated, an appropriate level of psychosocial treatment for the addiction, and ongoing treatment for co-morbid physical and psychiatric disorders.

3.3.5.1.6 Criteria for program completion

Immediately after admission to short-term in-patient treatment, patients should be monitored multiple times per day regarding withdrawal symptoms and any acute physical or psychiatric disorders. Once they have been stabilized, daily monitoring should focus on both physical and

psychiatric status, as well as motivation and development of goals and plans for treatment after discharge.

The main long-term goal of treatment is to help the patient develop an ability to maintain a drug-free, healthy and functional lifestyle. The immediate goal is to lay the foundation and establish the long term treatment plan that will serve those ends.

Successful completion of short-term residential treatment can be evaluated for each patient on the basis of several dimensions including:

- Resolution of withdrawal symptoms
- Development of understanding by the patient of his/her addiction and related problems
- Development of motivation to engage in ongoing treatment after discharge
- Improvement in physical and mental health, and initiation of treatment and/or discharge plans to handle such problems over the long term
- Improvement in craving for drugs and beginning development skills to control over triggers (thoughts, emotions and behaviors) that lead to drug use
- Readiness to engage in continuing care in either long term residential treatment, or outpatient treatment setting after discharge.

3.3.5.1.7 Discharge, Aftercare and Referral

- There are defined criteria for the expulsion of patients due to violation of treatment service rules, violence, continued use of alcohol or illicit drugs, among others
- There are defined criteria for the management of specific risk situations (e.g., intoxication, suicide risk)

3.3.6 Long Term In-Patient/ Residential Treatment

3.3.6.1.1 Overview

This refers to care in a therapeutic facility in which patients spend up to 24 hours for an extended period of time, usually 6 weeks to 24 months. It is important that each client has a sufficient duration and intensity of treatment, to ensure that behavioral changes have been consolidated and internalized and that they are adequately prepared to return to the community. The duration varies with each client, however, those who stay for at least 3 months usually have better outcomes when they leave treatment.

Residential treatment intended to produce therapeutic change must be distinguished from forms of supported accommodation that are primarily intended as a housing intervention not providing active treatment (as discussed under the out-patient treatment setting). The primary focus of long-term in-patient treatment is on learning skills to control impulses to maintain abstinence and on developing new interpersonal skills, personal accountability, responsibility and improving self esteem. There are rules and activities designed to help patients examine dysfunctional beliefs about self and others, and destructive patterns of behavior and assist them to adopt new and more effective ways to interact with others. Comprehensive services including vocational skills, employment training, and treatment for mental health disorders are provided within the long-term residential treatment.

While long term treatment can take place in a hospital environment, typically a psychiatric hospital, the most common form of residential treatment is the therapeutic community (TC) model, a hybrid of therapy and community living developed from programs of drug-free communal living with self-help philosophy. Other forms of long-term in-patient treatment have been developed to deal more specifically with co-morbid psychiatric disorders, and have characteristics of psychiatry and medical clinics with integrated psychotherapy, family therapy and pharmacological interventions.

Staying in a long term residential program allows patients to be removed from the chaotic and stressful environment that might have contributed to continuing drug use that make abstinence from alcohol and other drugs more difficult. In the new therapeutic environment that is free of drugs, patients are no longer exposed to the usual cues that trigger drug seeking behavior and may find it easier to maintain abstinence and work towards recovery.

A therapeutic community (TC) has the standards of a health care facility while maintaining the less formal beneficial aspects of community living. It uses the program's entire community, including other residents, staff and the social context, as active components of treatment. The environment is "drug free", thus residents agree not to bring or use alcohol and other drugs in the community grounds, or while resident in the community. In the past, psychotropic medication was excluded, but this is changing in many TCs now.

The traditional model of long-term residential treatment included only the psychosocial treatment methods, but the modern approach may involve use of medication to decrease alcohol and other drug craving and diminish co-morbid psychiatric symptoms. Similarly, the confrontational style of interactions previously adopted in TC has been replaced by therapy focusing on improving relationships with others, strengthening patient's healthy and adaptive thoughts and behaviors and on enhancing motivation to change behavior.

The intensive and supportive care-giving that patients experience in residential treatment represent an appropriate response to the personal history often characterized by poor parental care, emotional neglect, physical or sexual abuse, trauma, interpersonal violence and social exclusion. In addition, the structured activities and the rules of the residential program help patients develop better impulse control and delay gratification while learning skills to deal with frustration and to cope with stress. Taking on concrete commitments help develop personal accountability and evaluate personal progress with measurable achievements.

If a long-term residential treatment program is struggling to retain clients, they may need to change their program to include a short-term residential evaluation and orientation period before any decision to undertake long-term residential treatment. Additionally, the duration of treatment can be reduced by providing a step-down approach with halfway accommodation that provide continuing care and can be used in combination with outpatient treatment. It is also important to support family members, including services to accommodate children and psychosocial services integrating relevant family members.

3.3.6.1.2 Goals

The primary goals of long-term in-patient treatment are:

- To reduce the risk of a return to active drug use
- To assist the patient in regaining or attaining improved personal health and family work and social functioning
- To allow patients to develop effective interpersonal relationships with other residents and staff while acquiring new social skills, gaining self-confidence and receiving appreciation for positive behaviors
- To help patients acquire new habits to support healthier lifestyle such as good nutrition, a stable sleep/wake routine, a routine health monitoring and adherence to treatment
- To give patients the opportunity to complete their education and develop vocational skills to progressively become able to regain control over their life once they return to the general community.

To accomplish these goals, residential setting provides opportunity to treat psychiatric and substance use disorders using medication and psychotherapy but also helps to develop

- skills to cope with cravings and life stressors without drugs
- interpersonal and communication skills to build a network of friends who are abstinent
- new habits to support healthier and productive life such as good nutrition, stable sleep/wake routine, health monitoring and treatment adherence

The target population is patients who are unlikely to maintain abstinence outside a structured setting to improve their life quality or to participate in health and social integration. These patients require intensive and continuing treatment to address the whole person, with a particular focus on managing complex psychological and social problems associated with addiction, and initiating changes in multiple life domains to facilitate transition to the process of recovery.

3.3.6.1.3 Indications for long-term residential treatment:

- individuals experiencing increasingly severe drug-related difficulties, such as patient with chronic substance use disorders and related problems that significantly undermine their education, employment and social integration process
- Individuals with a history of unsuccessful treatment, not responding to pharmacological and psychosocial treatment in outpatient programs or short-term residential facilities
- Individuals with limited personal resources and in marginalized roles
- Individuals with significant social and family problems, with a chaotic family life, limited social support and social isolation
- Individuals affected by severe co-morbid psychiatric disorders that may seriously affect their health and security outside the structured setting (although they may require hospitalization more than a therapeutic community)
- Individuals with difficulties in interrupting their affiliation to criminal groups and drug dealing networks
- Individuals who recognize the need and are prepared to significantly change their lifestyle and acquire new responsibilities and skills

3.3.6.1.4 Treatment approaches and methods

These vary with different programs. The table below shows the different approaches that can be used:

Treatment approaches in delivery of services
Pharmacological treatment
<ul style="list-style-type: none">• Management of Withdrawal Symptoms (Medical Detoxification)• Management of Intoxication/Overdose• Management of co-morbid medical and psychiatric disorders• Maintenance Treatment• Relapse Prevention
Non-pharmacological treatment
<ul style="list-style-type: none">• Psychosocial interventions<ul style="list-style-type: none">▪ Psycho-education▪ Brief Intervention▪ Motivational Interviewing▪ Motivational Enhancement Therapy▪ Cognitive Behavioral Therapy▪ Behavioral Therapy▪ Individual therapy▪ Group therapy▪ Family therapy▪ Marital Therapy▪ Crisis Intervention Therapy• Treatment models<ul style="list-style-type: none">▪ Therapeutic Community (TC)▪ Minnesota Model▪ Matrix Model▪ Twelve Step Program

Treatment may begin with medical detoxification, or it may occur prior to admission. Residential treatment programs should conduct a comprehensive psychosocial evaluation of every patient entering the program to determine their unique needs and consider their suitability for that setting. This allows the therapist to develop a treatment plan that best matches the patient's needs. Patients with greater physical and mental health problems may need a setting with appropriate level of medical or psychiatric care.

Initial phone based assessment may be done prior to the in-person evaluation. The initial meeting allows the staff to become familiar with the prospective patient and it is the first step in developing therapeutic alliance. During the first meeting, prospective patients frequently make the final decision to enter the program. An accepting and welcoming attitude can influence this decision.

With the patient's consent, the patient's needs should be discussed with the referring agency and with the patient's medical practitioner, especially if they are receiving medication for the treatment of any physical or mental illness.

Assessment tools may include, Addiction Severity Index (ASI) or Composite International Diagnostic Interview – Substance Abuse Module (CIDI-SAM).

Important areas of evaluation are:

- previous short and long-term treatment received and perceptions of this previous treatment
- current living conditions, including safe accommodation or housing and support system at home
- family life, including relationships with family of origin, intimate relationships and dependent children
- friendships, including network of peer relationships, positive or negative influences, and people to support long-term sobriety
- general health, including any current health concerns, physical, sensory, or cognitive disabilities
- mental health, including trauma history, abuse (physical, emotional or sexual), violence and suicide risk, current psychological and interpersonal functioning
- education and work, including school and work history, vocational training level and needs, income (legal and illegal)
- legal problems, including criminal activity and any links to drug use
- leisure activities, hobbies

The unique nature of the long-term in-patient treatment setting is the ability to observe the patients over extended periods, creating an opportunity for a thorough evaluation. It also allows evaluation after an initial period of abstinence from drugs, to ensure that the evaluation is not affected by the effect of drug intoxication or withdrawal. The patient understands the nature of treatment and is able to fully consent to it. Living with peers and staff allows for assessment of temperamental and personality traits which can be useful to help with individualizing treatment to help develop skills to develop and manage relationships after discharge.

Every program should have a written intake policy to assure that admission to the program is voluntary (written consent of the patient) and free from any discriminatory influence. Such a policy clearly describes the eligibility and exclusion criteria. There should also be a written intake/orientation procedure, which is used for all incoming residents. During the intake process, new patients should be well informed and receive written information about the program including objectives, treatment methods used and the program rules.

Patients should be informed about their obligations, their rights and the details regarding privacy, non-discrimination and confidentiality. They should be informed about the role of program staff, the underlying philosophy influencing treatment environment, and the expectations of any visitors, including clear information about visitations. Administrative details such as program cost and payment methods are discussed. Staff should be well trained in the policies and procedures of the program.

If a potential resident is not to be accepted to a program, a full explanation should be given verbally and in writing to the potential resident and the referring agency, where feasible. Appropriate referral must also be made. The evaluation staff must be aware of appropriate alternative services for referrals, and a network of services must be pre-established.

Higher levels of treatment engagement can predict more positive treatment outcomes.

Factors that foster treatment retention include client and program variables such as:

- Level of motivation before treatment
- Level of alcohol or drug consumption before treatment
- Number of arrests before treatment
- Strength of the therapeutic relationship

- Perceived helpfulness of the treatment service and usefulness of the treatment
- Empathy of the service staff
- Inclusion of relapse prevention training

The first few days in treatment are the most key to focus on the patient's engagement and assure that they remain in treatment, as the risk of dropout and relapse is highest. Dropping out is common in the first three weeks in treatment. During that time, many clients may continue to experience psychological distress related to protracted withdrawal (lack of sleep, anxiety, irritability, drug craving), may be ambivalent about giving up drugs, and may find it difficult to adapt to the rules of the program. It is therefore important that the clients receive individualized attention focused on enhancing motivation to remain in treatment. Retention in the early stages of residential treatment may also be improved by educating the patient about treatment thus reducing natural anxiety about "what will happen". Information sessions should cover themes such as:

- the program's philosophy and expectations
- the program's approach to treatment and recovery
- the program's retention and health outcomes,
- frequently encountered concerns that residents have during early phases of treatment

To address wavering motivation for treatment and ambivalence about change, program staff should implement the following:

- Maintenance of a friendly and welcoming atmosphere
- Establish a therapeutic alliance built on trust as early as possible in the process
- Rapid response to requests for treatment in order to maximize the client's motivation
- Focus on the client's immediate concerns, not those of the program
- Provision of more intensive support to clients during their first 72 hours in treatment through methods such as closer observation, increased general interaction and the use of a "buddy system" (pairing of new resident with established resident)
- Caring and respectful approach in all aspects of the treatment program, as confrontation often results in anger and early drop out
- Give objective feedback about the problem and the processes of change in order to foster credibility and trustworthiness
- Develop motivational strategies that focus on the individual patient
- Develop realistic and personalized treatment goals that reflect the client's stage of change and that are flexible enough to shift as the client progresses
- Create an awareness of the heterogeneity of clients, particularly in the group treatment process
- Identify multiple strategies for clients with multiple problems
- Intervene early to reduce confusion and to clarify expectations and roles; manage clients to provide individualized, holistic and ongoing support

3.3.6.1.5 Therapeutic interventions

Long-term residential treatment (mainly those based on the therapeutic community model) should at the bare minimum, provide:

- alcohol and drug free environment
- variety of regular group meetings (e.g., morning meetings, non-confronting groups, special groups for female residents, peer evaluation groups)
- individual psychosocial support (if needed).

Program rules should have clear procedures for admission and discharge and consequences for negative behavior and a clear structure of activities and responsibilities in the residence. Hospital based residential programs should provide medical and psychiatric care, individual and group therapy, and sessions with family members.

The various therapeutic modalities are individual and psychosocial intervention, life skills training, employment and training options and recreational activities.

Specific psychosocial treatment methods include:

- Cognitive Behavioral Therapy
- Motivational Enhancement Therapy
- Social Skills Training
- Cognitive Restructuring Techniques

Therapeutic interventions such as art and creative therapy, movement therapy, meditation, relaxation and physical activity (exercise and group sports) can help patients discover and develop new hobbies and recreational activities that can continue after their return to the community and support their recovery.

Employment is vital to recovery, thus many long-term residential programs include interventions to prepare residents for work, including educational services, vocational services and job training. Young adults may have an opportunity to complete the general school curriculum or learn new trades. Vocational services include job counseling, interviewing coaching, resume (CV) writing and job application/placement services. Job training allows residents to learn new skills and develop confidence. Treatment programs use work and learning new skills as a therapeutic intervention integrated with other methods, to prepare residents to re-enter the community following successful completion of treatment.

Interventions that should be avoided include: harsh verbal confrontation or shaming techniques, punitive or restrictive techniques (including physical restraints), approaches such as counter-conditioning, punitive interventions or shock therapy, and any other intervention that compromises individual safety or dignity.

Structured Relapse Prevention and active practice of relapse prevention are essential elements of therapy in preparation for re-integrating residents into the community. Evidence based interventions that are routinely used in the outpatient treatment setting could be adapted and used in the long-term in-patient treatment setting.

Treatment activities in long-term in-patient/residential treatment programs for people with substance use disorders

- Comprehensive bio-psychosocial assessment of the patient/client
- Treatment plan which best addresses the needs of the individual
- Treatment contract which clearly outlines all treatment procedures, services and other policies and regulations as well as program's expectations of the patient
- Ongoing evaluation of patient's progress in treatment, and continuous clinical assessment that is built into the program
- Discharge planning with relapse prevention and continuing care strategies for the period after residential treatment

3.3.6.1.7 Staffing

Clients in a long-term residential treatment program need to be managed by a multidisciplinary team, hence need for adequate staffing. Counsellors, nurses and social workers should be present in the program at all times. Medical supervision is required for the therapeutic aspects. At a minimum, medical doctors (including psychiatrists, if possible) should be on call or available for a certain number of hours every week. Facilities with residential treatment of co-morbid psychiatric disorders need the presence of the medical care on site every day with the "on call" availability during the night.

The table below shows the staffing requirement for long-term residential treatment program:

Essential	Additional where available
Medical Officers/Clinical Officers Nursing Officers Addiction Counsellors Medical Social Workers Peer Educators Occupational Therapist Outreach Workers	Psychiatrist Psychologists Spiritual Counsellors

Individuals who are in recovery such as former residents of a similar program can be valuable role models for the residents. It would be preferable if they have had a job outside a treatment program before they are hired as staff. They should also have a professional training as a counsellor or group worker.

For professionals starting to work in a TC, it is advisable to spend time in the TC before or immediately after they are hired, preferably as a resident. There should be a strict code of ethics for the staff. Staff should refrain from humiliating or degrading measures for residents and advocating personal beliefs. Optimally, an external board provides oversight to assure that TC directors do not abuse their power.

3.3.6.1.8 Criteria for program completion and indicators of effectiveness:

During treatment, residents are regularly monitored and periodically evaluated with the goal of providing the resident with feedback regarding progress towards treatment goals and his/her readiness for program completion.

The evaluation of treatment success and readiness for discharge should be based on:

- Improvement in physical and mental health
- Understanding of factors and triggers that may contribute to relapse as well as demonstration of skills to recognize them and manage drug craving
- Improvement in social functioning and willingness to move away from network of people who use drugs to social networks valuing abstinence and recovery
- Development of new hobbies and interests to continue following discharge
- Readiness to engage in continuing treatment and recovery maintenance following discharge
- Ability and motivation to engage in work and contribute to the life of the community

Some long-term residential treatment programs offer a transitional or re-entry treatment phase during which residents gradually spend increasing amount of time in the outside community (pursuing school or work) but are still residing in the program. This period of increased contact with the wider community while maintaining the safety, stability and support provided by the program gives the residents the opportunity to practice newly acquired skills to maintain abstinence, to develop new relationships and supportive friendship networks and, where appropriate, to re-establish relations with their immediate families, within a network of program support. The focus of this re-entry treatment period is to prepare residents for a final discharge from the program.

3.3.6.1.9 Discharge, Aftercare and Referral

- There are defined criteria for the expulsion of patients due to violation of treatment service rules, violence, continued use of illicit drugs, amongst others.
- There are defined criteria for the management of specific risk situations (e.g., intoxication, suicide risk)

- Discharge is based on determination of patient recovery status
- Attention is paid to further treatment support (e.g., family, social) which may be required, based on patient's diagnoses, goals and resources
- Care plans are explored which map out alternative pathways which might be followed in the event of partial or complete failure of the original plan, or expulsion from drug treatment services

3.4 RECOVERY MANAGEMENT

3.4.1 Definition

Recovery management represents a long-term recovery-oriented model of care for patients with substance use disorders that follows stabilization of abstinence achieved during outpatient or residential treatment. It is also referred to as “after-care”, or social support. “Continuing Care” can also be used interchangeably with “Recovery Management” (RM) and is characterized by longer duration and attenuated intensity.

It focuses on reducing the risk of relapse to drug use by supporting change in an individual's social functioning, personal wellbeing, as well as in their place in their community and wider society. Recovery management is focused on stabilizing, supporting and strengthening one's recovery over the lifespan and moves the focus to the patient taking increasing personal responsibility for managing their disease building on the strengths and resilience of individuals.

Evidence from longitudinal studies is that treatment of substance use disorders is associated with major reductions in substance use, problems, and costs to society. However, relapse after discharge, and eventual re-admission are also very common. The majority of patients admitted to treatment have been in treatment before. The risk of relapse may not go down until after 4 to 5 years of abstinence. A sustained recovery is possible in up to 40% of patients with substance use disorders.

Ideally, residential and intensive outpatient care should both be followed by a step down to a less intensive level of care that continues long-term. Recovery-oriented continuing care is an alternative to often encountered care characterized by repeated episodes of acute treatment with post discharge aftercare limited to passive referrals to self- help groups. Recovery-oriented continuing care is an approach to long-term management of patients within the network of community-based supports and services.

Professionally directed recovery management shifts the focus of care from one of “admit, treat, and discharge” to a sustained health management partnership. This is because drug dependence is a chronic and relapsing disorder, similar to diseases like hypertension, asthma and diabetes. The traditional discharge process is replaced with post- stabilization monitoring, recovery education, recovery coaching, active linkage to communities of recovery, recovery community resource development, and early re-intervention when needed. Recovery management provides an expanded array of recovery support services for a much greater length of time, but at a much lower level of intensity and cost per service episode.

Individuals affected by substance use disorders should be offered medical and psychosocial interventions over a lifetime, with intensity matching the severity of symptoms. This should include long-term pharmacological, psychosocial, and environmental treatment strategies to maximize chances of improvement across a range of outcomes, including substance use, physical and mental health, criminal behavior, risk-taking, and social functioning.

The term “Recovery Management” (RM) better describes the more comprehensive aims related to well-being and social reintegration, and a life course perspective for treatment efforts.

3.4.2 Principles of recovery management approach

Recovery-oriented care includes the Strengths-Based Case Management which views recovery as more than the achievement of abstinence from drug use, but to also as a means to build meaningful and satisfying lives which will become a strong buffer against relapse.

This approach is characterized by:

Focus on increasing strengths rather than reducing deficits: It seeks to identify, nurture and further develop a client's skills, talents, resources, and interests rather than emphasizing needs, deficits, and pathologies.

Flexible rather than fixed approach: A recovery-supporting program must respond to patient changes through modifications made over time, offering choice by providing a flexible range of supports and services to meet needs of the individual patient.

Consideration for patient's autonomy: Recovery management is a self-directed approach, rather than a mandated non-voluntary program, that encourages and supports individuals in making informed choices about their life and treatment. The importance of incorporating patient choices has been stressed in other areas of medicine, especially with regards to the management of chronic diseases, and was found to increase individual's responsibility for their recovery.

Participation of community: Recovery management involves family, friends, and the whole community to strengthen social aspects of recovery as opposed to overcoming addiction in isolation. It encourages others to play a role in the recovery process and draws on the resources of the community, including professional and non-professional organizations, faith-based organizations, and schools. Members of family and community organizations are incorporated, when appropriate, in recovery implementation.

3.4.3 Goals

The primary goal is to maintain benefits obtained in earlier phases of treatment such as being able to maintain abstinence and control the compulsive drug-seeking behavior achieved during the intensive treatment stage.

Other goals are:

- To support an individual in developing and consolidating the personal and social assets that are necessary to cope with external circumstances and in maintaining healthy lifestyle. This includes ongoing pursuit of personal and social recovery as a part of living a drug-free life, improvement in self-care for physical and psychological well-being, reclaiming personal dignity, self-worth, and spiritual or religious growth.
- To help individuals remain actively involved in treatment (take medication and attend regular therapy) and/or maintain engagement with broader community of recovering individuals such as self-help groups.
- To support the development of skills to manage daily stress related to homelessness or the maintenance of housing, unemployment or workplace problems, social isolation or unsatisfactory interpersonal relationships. In particular, patients need support prior to and during crises and conflicts to help control dysfunctional and emotionally intensive reactions.
- To reduce stressful stimuli that could provoke the recurrence of compulsive drug seeking. The resurgence of psychiatric symptoms that have been "masked" by drug use must

be anticipated during early recovery. This will allow for the provision of appropriate treatment and care, including pharmacological and psychosocial interventions.

In general, recovery-oriented care assists patients by improving and stabilizing a good quality of life and opportunities for social reintegration in the community.

3.4.4 Target population

The majority of the patients treated for substance use disorders may need “recovery management” interventions for a long time after a treatment episode, at intensity matching the needs of the individual. Patients who would benefit most from more intensive recovery management programs include:

- patients with high disease complexity (in particular those with early onset drug use disorders who may have global impairment of functioning, low effective life skills and limited coping mechanisms for stress)
- patients with a clinical history of multiple relapse episodes
- poor family and community support
- financial, legal and housing problems
- physical and mental health disorders

It is important that patients with a high vulnerability for relapse are connected with appropriate and personalized components of recovery management before the discharge from long-term residential or intensive outpatient treatment program.

3.4.5 Treatment Interventions and models

Recovery Management (RM) and Continuing Care basic activities offer the patient opportunities, after being discharged from intensive treatment, to maintain stable relationships with the health care system, the social services and substance use disorders treatment facilities. In the most common cases, a counselor will coordinate the case management, meet the patient frequently, provide positive indications and support, encourage engagement in the community and help manage stressful conditions.

The counselor will help connect the patient with other professionals who can be helpful in the process of social reintegration, depending on their specific needs. These include social workers, psychologists, medical practitioners, sex and reproductive health professionals, legal services officers. All these interventions will be coordinated by the case manager in the perspective of continuing care.

Recovery management approach includes a variety of activities that promote and strengthen internal and external resources to help affected individuals voluntarily resolve problems related to drug use and actively manage the vulnerability to recurrence of such problems. Some of those activities are already present in patient’s home, neighborhood and community contexts while other can be developed.

The following factors and activities have been found to increase social reintegration and improve chances of stable remission from substance use disorders the maintenance of recovery:

- A supportive partner and a network of family members and friends that can monitor the stability of recovery, abstinence from drugs and compliance with treatment
- A meaningful work with appreciation in the work-place that replaces stigma and discrimination
- Engagement with individuals and social networks of friends and workmates that have abstinence-oriented norms and are supportive of recovery goals

- Political, humanitarian and spiritual involvement that provides a way to attribute meaning to life's stressors and develop a stronger purpose in life
- Strengthening individual's resilience, self-efficacy and self-confidence to manage daily challenges and stress while maintaining commitment to recovery and avoiding relapse to substance use
- Increased social participation and integration in educational and vocational pursuits, including volunteering or community involvement
- Remediation of legal and financial problems
- Active involvement in self-help, religious or other support groups is associated with sustained recovery



The figure below shows the various components that need to be addressed in the recovery phase:

3.4.6 Development of a treatment plan

This should be done with the help of a team of professionals with the patient's involvement. Treatment plans should be individualized and consistent with the management of other chronic illnesses.

During the acute and/or intensive care programs treatment plans are modeled on a variety of health care professionals playing a central role. In contrast, during recovery-oriented care the focus of plan expands from the primarily medical, characteristic of earlier phases of treatment, to include social dimensions of recovery and includes other professionals such as social workers, psychologists, peer counselors, tribal elders, clergy, as well as friends and supportive family members.

CHAPTER 4

4.0 PHARMACOLOGICAL AND PSYCHOSOCIAL MANAGEMENT OF SUBSTANCE USE DISORDERS

4.1 Treatment approaches in delivery of services

This chapter shall focus on pharmacological and psychosocial management of the most commonly used substances in Kenya. The best approach uses a combination of both pharmacological and psychosocial interventions to reduce both substance use and related harms and to improve quality of life. This is referred to as psychosocially assisted pharmacological treatment and gives the patient a comprehensive range of services to manage various problems affecting them across several life domains. Care components need to be tailored to meet the needs of each patient.

Treatment approaches in delivery of services

Pharmacological treatment

- Management of Withdrawal Symptoms (Medical Detoxification)
- Management of Intoxication/Overdose
- Management of co-morbid medical and psychiatric disorders
- Maintenance Treatment
- Relapse Prevention

Non-pharmacological treatment

- Psychosocial interventions
 - Psycho-education
 - Brief Intervention
 - Motivational Enhancement Therapy
 - Cognitive Behavioral Therapy
 - Behavioral Therapy
 - Individual therapy
 - Group therapy
 - Family therapy
 - Marital Therapy
 - Crisis Intervention Therapy
 - Contingency management therapy
- Treatment models
 - Therapeutic Community (TC)
 - Minnesota Model
 - Matrix Model
 - Twelve Step Program

4.2 Pharmacological Interventions

These include:

- Management of Withdrawal Symptoms (Medical Detoxification)
- Management of Intoxication/Overdose
- Management of co-morbid medical and psychiatric disorders
- Maintenance Treatment
- Relapse Prevention

Management of Withdrawal Symptoms (Medical Detoxification)

Medical Detoxification is the management of withdrawal drug use in order to arrest or reduce the acute physical and psychiatric symptoms and other concurrent drug use and health problems among persons with severe dependence, and to reduce future relapse.

Pharmacological or non-pharmacological interventions can be used, depending on the nature of drug use, and they may be delivered as either out-patient or in-patient/residential services.

Treatment of withdrawal is of the foremost concern if a patient has had a protracted and severe recent history of alcohol, opioid, benzodiazepine or barbiturate use. Unrecognized and untreated withdrawal can drive a patient out of treatment.

Medical detoxification can be done both at outpatient and in-patient levels, depending on severity of the condition and the type of drugs used. Each case should be handled on the basis of a careful assessment of the client, especially in clients who present with acute medical and psychiatric problems, especially seizures and depression and concurrent acute alcohol dependence.

Stabilization of acute withdrawal problems is typically complete within 3-5 days, but may be extended for patients with co-morbidities. Psychological interventions and education must be initiated during the detoxification process.

Management of Intoxication/Overdose

The term drug overdose (OD), describes the ingestion or use of a drug or other substances in quantities greater than are recommended. Signs and symptoms vary depending on the substance exposure. Overdose may result in a toxic state or death.

Management includes:

- Stabilization of the victim's airway, breathing and circulation (ABCs)
- Ventilation when there is low respiratory rate or when blood gases show the person to be hypoxic.
- Continued monitoring of the patient before and throughout the treatment process, paying attention to temperature, pulse rate, respiratory rate, blood pressure, urine output and oxygen saturation.
- Certain overdoses have specific antidotes: Opiate/Opioid overdose managed with Naloxone; Benzodiazepine overdose managed by Flumazenil.
- Activated charcoal can be used as a non-specific antidote if available within one hour of the ingestion or if the ingestion is significant.

Management of medical and psychiatric co-morbidities

This can be done in out-patient and in-patient treatment settings. Patients need to undergo full history and examination, which includes past medical and psychiatric history, physical and mental status examination as well as laboratory and psychological assessment and diagnostic tests.

Patients with substance use disorders should also be assessed for chronic disorders such as HIV, TB, Hepatitis, chronic pain, mental disorders and NCDs and their care be integrated with the substance use disorder management. Similarly, HIV, TB and NCD programs should integrate substance use disorder management in their service delivery.

Co-morbid psychiatric disorders such as depression, post-traumatic stress disorder, anxiety disorders as well as other psychotic symptoms are common among people who use alcohol and other drugs. The critical first step in the accurate evaluation of psychiatric symptoms among people who use alcohol and other drugs is to distinguish independent disorders from disorders that are substance induced and will resolve with abstinence. Acute and chronic alcohol and drug use, and withdrawal syndromes can produce many symptoms of depressive and anxiety disorders such as depressed or anxious mood, loss of interest, irritability, fatigue, insomnia, poor concentration, low appetite and weight loss.

Maintenance Treatment

This is therapy that is designed to help a primary treatment succeed. As with treatment models for chronic diseases, treatment for individuals with substance use disorders occurs in phases that include initial assessment, acute intervention, and long term interventions/ and or maintenance with frequent reassessment during episodic flares in substance use. Depending on the clinical circumstances and an individual's readiness for change, maintenance treatment strategies may emphasize providing motivational enhancement therapy, teaching risk reduction behaviors and skills, helping patient achieve abstinence and learn relapse prevention skills, helping the patient achieve abstinence and learn relapse prevention skills or combining substitution agonist therapies (e.g. Methadone or buprenorphine for opioid-dependent individuals) with therapy to help the patient acquire relapse prevention skills.

In addition, individuals with substance use disorders often require multimodal treatment to address associated conditions that have contributed to or resulted from the substance use disorder. Specific pharmacological and psychosocial treatments are reviewed separately in this guideline; however, in practice they are often implemented together for better treatment and retention outcomes.

Relapse Prevention

Relapse prevention (RP) is an important component of addiction treatment as recovery determinants such as high-risk situations, coping skills, outcome expectations, lifestyle factors and urges and cravings can contribute to relapse.

Relapse Prevention also incorporates both pharmacological and cognitive behavioral strategies allowing therapist and client to address each step of the relapse process. Specific interventions include identifying specific high-risk situations for each client and enhancing the client's skills for coping with those situations, increasing the client's self-efficacy, eliminating myths regarding substance effects, managing lapses, and restructuring the client's perceptions of the relapse process. Pharmacological RP approaches for specific substances are used alongside the behavioral interventions.

4.2.1 Depressants

These include alcohol, prescription medication such as benzodiazepines and opiates as well as other opioids, solvents/inhalants

a) Alcohol

Management of Withdrawal Symptoms

Detoxification is mainly done as an inpatient procedure and with regular monitoring of vital signs.

Ask about the last time the patient took alcohol and monitor for the emergence of severe withdrawal symptoms.

Give prophylactic treatment for those who are high risk; heavy, regular alcohol use or have history of past withdrawal episodes.

Benzodiazepines are the mainstay of therapy – Diazepam, Lorazepam, Alprazolam and Chlordiazepoxide. Use long- acting benzodiazepines started at a dose sufficient to relieve withdrawal and tapered slowly over a period of days or weeks.

The Table below shows Alcohol Withdrawal Management

Medication	Dose regimen	Remarks
Diazepam Or Lorazepam (short-acting benzodiazepines)	10mg-20mgs P.O, given every 6 to 12 hours for 3-5 days then tapered off gradually to once daily. (Total daily dose 20 - 90mg) 10-20mgs QID for 3 days 10-20 mgs TID for 3 days 10- 20 mgs BD for 2 days 10-20mgs nocte for 2 days. 2-4mg I.V or P.O t.id ()	Used for patients with significant liver disorder.
Chlordiazepoxide (long-acting benzodiazepine)	100mgs stat then 100mgs every 12 hours for 5 days then 100mgs every other day for 2 days.	More specific for withdrawal and less chance of dependence
<p>Note: Benzodiazepines may cause intoxication, physical dependence and withdrawal in alcohol use disorders therefore should not be continued after the withdrawal management period.</p> <p>During the administration of benzodiazepines patients should be constantly monitored for signs of over sedation or cognitive impairment and the dosage adjusted appropriately.</p>		
<p>Chlorpromazine and depot antipsychotics are not recommended initially as they may lower the seizure threshold. Where available and indicated, Haloperidol or atypical antipsychotics are preferred.</p>		
Carbamazepine	200mg P.O qid.	<p>May be used as an alternative anticonvulsant, especially when patients present with rum fits. Routine use of Phenytoin and phenobarbitone is unnecessary and unlikely to be effective.</p> <p>Outpatient therapy with Phenytoin and phenobarbitone is rarely indicated for patients with simple alcohol withdrawal seizures when no other source of seizure activity has been identified because seizures occur only under the stress of alcohol withdrawal, and patients who are withdrawing or heavily drinking may not take the anticonvulsant.</p>

Metoprolol Or Propranolol (β-blockers)	25-50mg P.O or 5mg I.V given every 4-6 hours as short term therapy for 12 to 48 hours 40mg prn	Given in severe hyperadrenergic activity or to reduce benzodiazepine requirements.
Clonidine (alpha blocker)	0.1-0.2mg P.O given every 2-4 hours	Given in severe hyperadrenergic activity.
Chlormethiazole (sedative-hypnotic)	2-4 capsules given, 4 times daily for 2 days, Then 3 times daily for 3 days, then 2 times daily for 2 days, then once daily for a day.	Structurally related to Thiamine (Vitamin B1), but acts as a sedative, hypnotic, muscle relaxant and anticonvulsant. Very flexible and useful in acute alcohol withdrawal (it is not a treatment for alcohol abuse and should only be used during withdrawal period, for less than 10 days) It is particularly toxic and dangerous in overdose
Haloperidol (antipsychotic)	Single dose of 2.5-5mg (upto 10mg daily) P.O or I.M, repeated every 4-8 hours.	Used in management of the psychotic symptoms and should not be prescribed for prolonged periods unless there is an comorbid psychotic illness.
Thiamine	Parenteral Vitamin B complex and Vitamin C combination given once daily on alternate days for 5 to 7 doses as a slow IV infusion with 100mls Dextrose Normal Saline(DNS) Oral thiamine given 100mgs once daily for at least 1 month	Used as prophylaxis of Wernicke's Korsakoff Syndrome (WKS)

Delirium Tremens (DT) may be fatal thus must be treated promptly with high dose IV Benzodiazepines, preferably in an ICU setting.

Supportive care for DT:

- Nurse in a quiet environment
- Nutritional supplementation
- Rehydration with intravenous fluids: Intravascular volume must be maintained with IV fluids, and large doses of vitamins B and C, particularly thiamine, must be given promptly.

Benzodiazepines: IV diazepam 5-10mg every 5-10 minutes until sedation is achieved or

- IV Lorazepam 2-4 mg every 15-20 minutes or
- Oral Chlordiazepoxide 25-100mg repeated hourly

Management of alcohol intoxication and overdose

Large amounts consumed rapidly or chronically can cause respiratory depression, coma and death. Symptoms of alcohol effects on an individual are proportionate to the Blood Alcohol Concentration (BAC). The levels required to produce given symptoms vary with tolerance, but in typical users it is as follows:

- 20-50mg/dL: Tranquility, mild sedation and some decrease in fine motor co-ordination
- 50-100mg/dL: Impaired judgement and a further decrease in co-ordination
- 100-150mg/dL: Unsteady gait, nystagmus, slurred speech, loss of behavioral inhibitions and memory impairment
- 150-300mg/dL: delirium and lethargy

Supportive Care	Pharmacological Treatment
Maintain Airway, Breathing and Circulation	IV dextrose
Intubate in case of poor gag reflex	IV/IM Thiamine 100g stat
Enhanced elimination (evacuation after 1 hour is of little benefit)	Magnesium
Activated Charcoal	
Haemodialysis (if indicated)	IV Metadoxine 300-900mg

Relapse Prevention

Naltrexone

Alcohol produces some of its reinforcing properties by releasing the body's own opiate-like substance (endorphins). Naltrexone is an opioid antagonist that blocks opioid receptors hence the endorphin-mediated alcohol-induced euphoria is not experienced. Maintenance on naltrexone will reduce alcohol use.

An initial medical workup must be completed before naltrexone treatment and should include a physical examination, laboratory tests, medical and substance use/abuse history, and a mental health/psychiatric status screen. A physical examination of the liver and various laboratory tests, including LFTs, pregnancy test, and urine toxicology screen, are also part of the medical workup. If the results are within normal range, followup LFTs may then be conducted at 3 and 6 months after the initiation of treatment, depending on the severity of liver dysfunction at the start of treatment.

Naltrexone should be initiated after signs and symptoms of acute alcohol withdrawal have subsided. It is recommended that patients be abstinent for 5 to 7 days before initiating naltrexone treatment. During this time they can undergo the routine alcohol detoxification program as the preliminary assessment and laboratory work up is done.

Dosage

Oral form	Injectable form	Implant form
Adults – the first dose may be 25mg Subsequent dose is 50mg daily. Children and teenagers up to 18 years – Use and dose must be determined by the doctor	Adults – 380mg injected to the muscle once a month.	Inserted under local anaesthesia in the left iliac fossa where it dissolves slowly. Implants can remain effective for 30-90 days .

Some of the side effects of Naltrexone, which also may overlap with symptoms of alcohol withdrawal, include nausea, headache, dizziness, fatigue, nervousness, insomnia, vomiting, and anxiety. These tend to occur early in treatment and generally resolve within 1 to 2 weeks. Patient education before treatment, support and reassurance can help tolerate these transient adverse effects.

Duration of treatment

It is critical to remember that alcohol dependence is a chronic disease and, like most chronic diseases, is likely to require continued monitoring to maintain lifelong remission. The goal for the patient taking naltrexone is to eventually discontinue the medication without relapsing. Treatment providers should individualize the length of naltrexone treatment according to each patient's needs. Initially, the patient can be treated with naltrexone for 3 to 6 months, after which the patient and the clinician can reevaluate the treatment progress and the decision to extend treatment must be based on clinical judgment. Other cognitive behavioral interventions should be offered concurrently

Acamprosate

Acamprosate is typically initiated 5 days following drinking cessation. However, acamprosate can be used safely with alcohol (and with benzodiazepines), and it can be started during medically supervised withdrawal. Acamprosate therapy should be maintained if a patient relapses to alcohol use. It reaches full effectiveness in 5 to 8 days.

Dose: 333mg 8 hourly

It is contraindicated in patients with renal impairment.

Disulfiram

Disulfiram disrupts the metabolism of alcohol, causing a severe reaction when patients mix disulfiram and alcohol. The symptoms of disulfiram-ethanol reaction (DER) usually occur within 15 – 30 minutes of ethanol ingestion and last for several hours. Peak effects occur within 12 hours. The signs and symptoms of DER include: head, neck and chest flushing (histamine induced vasodilatation); throbbing headaches; nausea, vomiting (may be refractory), diarrhea and abdominal pain; weakness, dizziness, confusion and anxiety; vertigo and ataxia, sweating, palpitations and dysrhythmias, pruritus, orthostatic hypotension refractory cyanosis

Patient knowledge of a possible severe reaction to alcohol consumption is thought to increase the patient's motivation to remain abstinent.

Use of alcohol when taking disulfiram can be fatal.

Dose: 200mg twice daily initially then once daily.

Methanol poisoning

Methanol, also known as wood alcohol, is a commonly used organic solvent that, because of its toxicity, can cause metabolic acidosis, neurologic sequelae, and even death, when ingested. It is a constituent of many commercially available industrial solvents and of poorly adulterated alcoholic beverages. Methanol toxicity remains a common problem in many parts of the developing world, especially among members of lower socioeconomic classes.

Methanol poisoning symptoms and signs

Time course: Initial symptoms generally occur 12-24 hours after ingestion.

Symptoms: Headache, nausea, vomiting, epigastric pain, drowsiness, coma, seizures, and vision loss.

Signs: Related to metabolic acidosis, (tachypnea, tachycardia, hypertension, altered mental status) pulmonary edema, acute respiratory distress, heart failure and arrhythmia, optic disc hyperemia with no retinal damage, poor pupillary response, drowsiness, stupor and coma.

Management

Prompt medical care is key to avoiding complications secondary to methanol intoxication. Patient needs to be managed in an in-patient setting.

i) Supportive therapy is aimed at initiating airway management, correcting electrolyte disturbances, and providing adequate hydration.

ii) Antidote therapy, often using ethanol is directed towards delaying methanol metabolism until the methanol is eliminated from the patient's system either naturally or via dialysis. Like methanol, ethanol is metabolized by ADH, but the enzyme's affinity for ethanol is 10-20 times higher than it is for methanol.

Ethanol treatment

Indications:

High clinical suspicion that a patient has ingested methanol

Blood methanol levels greater than 6.25 mmol/l (20 mg/dl)

Important to note:

- Half life of methanol is usually 15 - 30 hours
- Half life of methanol with ethanol treatment is 45 - 50 hours
- You may therefore have a non-sober patient on the ward for several (4 - 5) days
- Ethanol levels must be frequently checked to assure an adequate ethanol level.
- The intravenous route of administration needs to be done through a central line because 10% ethanol has high osmolarity.
- One ml of absolute ethanol contains 790 mg of ethanol (specific gravity 0.79) so a 10% ethanol solution has 79g/dl and an 86-proof alcoholic beverage has 34 grams/dl

Treatment regimen:

- Loading dose; 600-700 mg/kg (beware of existing ethanol levels)
- Maintain blood ethanol level of 100-150 mg/dl (level that will saturate ADH enzyme)
- Maintenance dose titrated against rate of elimination:
 - Non-alcoholic; 15 - 20 mg/dl/h
 - Chronic alcoholic; 30 - 40 mg/dl/h
 - Child; 30 mg/dl/h

Therapeutic doses of ethanol based on patient's previous alcohol use pattern		
	Absolute ethanol dose	Volume of 10% IV ethanol solution
Loading dose (all patients)	600-700 mg/kg	7.6-10 ml/kg in D5W over 30 min
No alcohol use:		
Maintenance dose	66 mg/kg/hr	0.83ml/kg/hr
Maintenance dose during haemodialysis	169mg/kg/hr	22.13 ml/kg/hr
Chronic alcohol user:		
Maintenance dose	154mg/kg/hr	1.96ml/kg/hr
Maintenance dose during haemodialysis	257mg/kg/hr	3.26ml/kg/hr

Fomepizole in treatment of methanol poisoning

For many years, the only pharmacologic treatment for ethylene glycol or methanol toxicity was ethanol, given either orally or by continuous intravenous infusion. Although effective for these indications, concern exists regarding ethanol's harmful side effect profile.

Fomepizole (4-Methyl pyrazole) is a competitive inhibitor of alcohol dehydrogenase, with an affinity for the enzyme 8,000 times that of ethanol. Where available, fomepizole should be used first. Fomepizole is effective in preventing the formation of toxic metabolites that are responsible for the complications of ethylene glycol and methanol poisoning.

Unlike ethanol, fomepizole is not commonly associated with adverse effects such as CNS depression, hypoglycemia, hypothermia and agitation. The dosing regimen of fomepizole does not require the frequent monitoring and subsequent adjustment of therapy that are necessary with ethanol treatment. The main disadvantage of fomepizole over ethanol is the acquisition cost.

iii) Correction of Metabolic acidosis in methanol poisoning may necessitate the administration of bicarbonate and assisted ventilation. Bicarbonate potentially may reverse visual impairment and reduce mortality. In addition, bicarbonate may be used in aggressive treatment to decrease the amount of active formic acid and its movement to the CNS.

Dose is 400 to 600 mg during first few hours. Monitor patient's sodium, pH, potassium and rehydration status

iv) Hemodialysis: Rationale: dialysis is very effective in removal of both methanol and formic acid from the body. Methanol is ideal for haemodialysis due to its low molecular weight, not protein bound and low volume of distribution. Hemodialysis is preferred over peritoneal dialysis because of more rapid mechanism of clearance. Hemodialysis also has the advantage of correcting the metabolic acidosis or fluid and electrolyte disturbances.

Indications:

- Any degree of visual impairment
- Severe metabolic acidosis; no improvement in acidosis despite repeated sodium bicarbonate infusions.
- Greater than 30ml of methanol ingested
- Blood methanol level greater than 15 mmol/l (50mg/dl)
NB: levels below 50 mg/dl may still have significant toxicity because the majority of the measured methanol has already been converted into its toxic metabolites and therefore clinical manifestations and a severe metabolic acidosis are key indication for dialysis
- Renal impairment

If dialysis is initiated the ethanol drip must be increased. Dialysis should be continued until the methanol level falls below 20 mg/dl. The patient must be followed closely after dialysis as a 'rebound' phenomenon has been well documented with the methanol levels increasing as much as 20 mg/dl over the 72 hour period following dialysis.

v) Folic acid and magnesium in treatment of methanol poisoning

Rationale: the enzymes that metabolize formic acid into H₂O and CO₂ in humans are folic acid and magnesium dependent.

Folinic acid/folic acid: 50 mg iv every four hours for 24 hours, or while formic acid may still be accumulating

Magnesium: MgSO₄ titrated against blood magnesium levels

b) Prescription Drugs (sedative-hypnotics/ benzodiazepines)

Management of Withdrawal Symptoms

Patients in short-term inpatient treatment should be assessed for previous benzodiazepine use and monitored for the emergence of severe withdrawal symptoms. Those deemed high risk (heavy, regular use or history of past withdrawal episodes) need prophylactic treatment.

Treatment needs to be done under strict medical supervision as the effects of withdrawal are severe and may lead to seizures. Treatment involves use of long-acting benzodiazepines started at a dose sufficient to relieve withdrawal and tapered slowly over a period of days or weeks. Take care to ensure that the treatment is not prolonging sedative-hypnotic use.

Patients are monitored for the emergence of severe manifestations of sedative-hypnotic withdrawal, including seizures, cardiovascular instability and delirium. Short term inpatient treatment programs should either be capable of the medical management of the severe manifestations or to transfer the patients to a medical hospital.

Management of intoxication and overdose

In sedative-hypnotic/ benzodiazepine intoxication, It is important to provide critical care measures such as assisted respiration and cardiovascular support during the acute intoxication phase

An antagonist is used to reverse the intoxication caused by benzodiazepines.

Flumazenil 0.2mg is given intravenously every 15 seconds up to a dose of 1-2mg.

It may induce acute withdrawal symptoms including seizures, hence the need to have I.V Lorazepam or Diazepam during treatment with Flumazenil.

Barbiturate overdose is life threatening and may not respond to Flumazenil therapy.

c) Opiates/ Opioids

Management of Withdrawal Symptoms Medical Detoxification

Management of opioid withdrawal symptoms is done in out-patient or in-patient/residential treatment settings either as non-opioid based or opioid based. Patients with opioid dependence may be advised that outpatient care may not provide adequate relief of symptoms. And that detoxification in a short-term residential drug treatment facility may be more effective.

Withdrawal management services should be structured should be integrated with ongoing treatment options.

Non-opioid based detoxification:

This involves use of a variety of medication for symptomatic treatment of the opioid withdrawal phenomena as summarized in the table below:

Opioids withdrawal signs and symptoms	Medication	Dosage
Adrenergic symptoms such as dilated pupils, excessive tearing, runny nose	Alpha – adrenergic agonists NB; Blood pressure monitoring is mandatory	Clonidine (tapered dosage) 300µg qid×3days 150µg tds×3days 75µg bd×3days

Lack of sleep (Insomnia) Anxiety	Benzodiazepines	Diazepam (tapered dosage) 10mgs qid x 3days 10mgs tds x 3days 10mgs bd x 3days 10mgs od x 3days
Vomiting	Antiemetics	Metoclopramide 10mgs prn
Pain and Body t e m p e r a t u r e dysregulation (fever or chills)	Analgesics/Antipyretics	Non-steroidal anti-inflammatory Drugs (NSAIDS) – Ibuprofen 400mg prn or Paracetamol 1g prn
Colic pains (cramps)	Antispasmodics	Hyoscine butylbromide 10 mg prn
Tachycardia & Palpitations	Beta blockers	Propranolol 40mg prn
Muscle spasms (cramps)	Muscle relaxants	Baclofen prn
Diarrhoea	Antidiarrhoea	Loperamide hydrochloride 2mg PRN
Fluid and electrolytes imbalance due to diarrhoea/vomiting	Oral or Intravenous Fluids	Water, ORS Normal Saline prn
Co-morbid psychiatric disorders – restlessness, irritability, low moods, depression	Manage accordingly; antidepressants	TCA – Imipramine SSRI - Fluoxetine

Opioid based detoxification:

This involves the use of an opioid agonist to relieve withdrawal symptoms.

- Codeine Detoxification
- Methadone-assisted Detoxification
- Buprenorphine-assisted Detoxification

Codeine Detoxification

Codeine is a long-acting full opioid agonist used for medical analgesia. **Starting dose is 180-240mg in 3-4 divided doses daily.** Once the symptoms subside, the dose is tapered to zero over 7 days. Additional non-opioid medication is recommended to relieve and control withdrawal symptoms.

Methadone-assisted Detoxification

The initial methadone dose and rate depends on previous experience of opioid withdrawal, current level of opioid use and degree of psychosocial support.

Suggested methadone-assisted withdrawal regimen

Day 1-4	Day 5-7	Day 7-14
20-30mg	35mg	Reduce by 2.5-5mg a day*
*Hold dose at same level for 2 days if discomfort is unmanageable		

The duration for in-patient management of opioid withdrawal may be 7-10 days with methadone, followed by several days without methadone prior to discharge to prevent relapse. Symptoms of opioid withdrawal may persist for several weeks while on methadone-assisted opioid detoxification therefore non-opioid withdrawal medication can be used in concurrently.

Buprenorphine-assisted Detoxification

Efficacy of buprenorphine detoxification is not well determined, but withdrawal from buprenorphine may be milder than from other opioids. It is probably best if conducted over longer periods.

Buprenorphine has been used in 3 ways for management of withdrawal from opioids:

- Short-period (rapid) withdrawal (≤ 3 days); often conducted on inpatient basis
- Moderate-period withdrawal (4-30 days); usually conducted on outpatient basis
- Long-period withdrawal (>30 days); typically on outpatient basis

Short-period detoxification (≤ 3 days)

Reports show Buprenorphine suppresses opioid withdrawal signs and symptoms better than Clonidine. Long term efficacy is not known.

Day 1: 8-12 mg SL

Day 2: 8-12 mg SL

Day 3: 6 mg SL

Moderate-period detoxification (4-30 days)

Effective in suppressing signs and symptoms of withdrawal

More effective than Clonidine over 4-30 days

Long term efficacy not known

Long-period withdrawal (> 30 days)

Studies still ongoing; suggests that longer, gradual detoxifications are more effective than shorter detoxifications

Taper more rapidly down to 8 mg, then taper more slowly

An example of detoxification protocol: NIDA-CTN Buprenorphine Detoxification Protocol

DAY	1	2	3	4	5	6	7	8	9	10	11	12
Buprenorphine-Naltrexone Dose (mg)	4 + additional 4 as needed	8	16	14	12	10	8	6	6	4	2	2

Overdose Management

Even though overdose can be fatal, early detection of overdose leads to better chances of recovery.

If you think someone is overdosing: perform a quick assessment as follows:

1. Is the person breathing? Is respiratory rate below 10 breaths per minute and oxygen saturation below 92%?
2. Is the person responsive (do they answer when you shake them and call theirname)?
3. Does he/she respond to stimulation (such as sternum rub)?
4. Can the person speak? Is the speech slurred?
5. What is the colour of his/her skin?

If you think the person is having overdose, the following steps may help revive most opioidoverdose cases.

The steps are best remembered by the acronym “**SCARE ME**”

S – Stimulation (wakening): This is the first step in overdose management and can be done by the people around the client. Try to wake the person by shouting their name, shaking their body or pressing the breastbone with your knuckles.

C – Call for medical help: If the client doesn’t respond to noise, movement or pain, immediately call for medical help. This can be done by client’s relatives in case overdose happens at home. But in case it happens at the Drop In Centre (DIC) or during outreach, then the TI staff should be equipped to handle such situations.

Put the person in recovery position (on one’s side with a hand under the head) so that he/she does not choke in case of vomiting.

A – Airway: Make sure there is nothing in the throat and the airway is clear of blockage. If necessary, remove any contents inside the mouth with your finger.

R – Rescue Breathing: If someone is suffering from opioid overdose, getting oxygen into his/her body is the most critical response. Check whether the person is breathing by placing your ear near the mouth to listen to the person’s breath and watching the chest to see if it is rising and falling. If there is no breathing lay the client on his/her back and perform mouth-to-mouth resuscitation and chest compressions: 30 compressions after every 2 breaths until breathing resumes.

E – Evaluate: check whether the client has improved and is breathing properly. If not, look for Naloxone.

M – Muscular Injection of Naloxone: Naloxone is a non-selective, short-acting opioid receptor antagonist that has a long clinical history of successful use for the treatment of overdose. It is an effective antidote for overdoses from short-acting opioids such as heroin. When managing opioid overdoses, the primary concern should always be respiration and oxygenation. Any respiratory arrest should be managed with assisted ventilation and oxygen while waiting for naloxone to be administered or to take effect.

After cleaning the injection site, prepare and administer **0.4-0.8 mg dose** of Naloxone via intramuscular (IM) injection (upper arm or thigh), or sub-cutaneous(below the skin), if intravenous administration (IV) by medical personnel is not feasible. Intramuscular injection is as effective as intravenous injection in reversing overdose.

E – Evaluate and Support: The effect of Naloxone should be evident within 1-5minutes and may last for 60-90 minutes. However, since recovery from overdose may be variable due to many factors, monitoring and support of the patient should be done as shown on the following table.

Monitoring and support in opioid overdose management

- Continue rescue breathing as needed.
- If the person does not wake up, open his/her eyes or take a deep breath within 4-5 minutes of giving **Naloxone, repeat the dose 0.4 mg – 0.8 mg IV/IM every 1-2 minutes, up to maximum dose of 10 mg in a day**, until there is sufficient arousal and adequate ventilation.
- If there is still no response, then consider the patient may have another problem other than opioid overdose. Call for help if you have not done so.
- It is possible overdose could return after 60-90 minutes when the effects of Naloxone wear off.
- Repeat the above steps if signs of overdose return.
- Ensure the patient stays with a responsible person or is retained in hospital for at least 24 hours.

NOTE: Initial doses of Naloxone above 2 mg can induce severe withdrawal, with the risk of vomiting and aspiration; very high doses above 10 mg may even be life threatening.

Patients with overdose from long-acting opioids are more difficult to manage. In this situation, the duration of sedation will outlast the effects of naloxone. Although patients can also be managed with repeated boluses of naloxone or naloxone infusions, death can occur if there is undetected interruption to the naloxone infusion or if patients wake up and discharge themselves from medical care. It is important to continue monitoring the patient until the opioid agent is cleared from blood circulation.

OVERDOSE DON'TS

- Do not leave the person alone by him/herself-could stop breathing
- Do not throw the person in a bath-could drown
- Do not make the person try to vomit- could aspirate their vomit
- Do not give the person something to drink – may cause them to vomit /aspirate the drink
- Do not inject anything into the person (unless it's naloxone) – need help, not more drugs or salt or water.

Patients should be advised that they are at risk of re-emergence of life threatening overdose when the effects of Naloxone wear off and therefore the need for continued observation in a hospital setting for 3-4 hours after administration of Naloxone. Upon discharge, patients should be advised to avoid using any opioids or other drugs that may cause CNS depression for at least 24 hours and to ensure they do not stay alone during that period.

Maintenance Treatment

Essential pharmacological treatment options should consist of opioid agonist maintenance treatment, either methadone or buprenorphine (see section on medication assisted therapy)

Choice of treatment should be based on:

- detailed assessment of the treatment needs,
- appropriateness of treatment to meet those needs (evidence based),
- patient acceptance
- treatment availability

All patients should be tested for recent use of opioids and other drugs. Voluntary testing for HIV and common infectious diseases (TB, Hepatitis B, Hepatitis C, STIs) should be available as part of an individual assessment, accompanied by counseling before and after testing. Laboratory or other facilities are available for the monitoring of progress and compliance with the treatment being administered.

Treatment plan should take a long-term perspective

Variety of structured psychosocial interventions should be available, according to the needs of the patient. These include different forms of counseling and psychotherapy, assistance with social needs such as housing, employment, education, welfare and legal problems.

On site psychosocial and psychiatric treatment should be provided for patients with psychiatric co-morbidity. Treatment for opioid dependence should be integrated with treatment and prevention of HIV, TB, STIs, Hepatitis B and C. There should be intermittent or ongoing evaluation of both the process and outcomes of the treatment provided.

Involuntary discharge from treatment is justified to ensure the safety of staff and other patients, however, non-compliance with program rules alone should generally not be a reason for involuntary discharge. Before voluntary discharge, reasonable measures to improve the situation should be taken, including re-evaluation of the treatment approach used.

Relapse Prevention

Pharmacological intervention involves using **Naltrexone**, a pure, potent **mu** receptor antagonist that reversibly blocks or attenuates the effects of opioids, especially the 'high' feeling. Naltrexone is not an opioid and does not produce any opioid-like effects or cause dependence. It is neither reinforcing nor addictive and does not have potential for abuse or diversion. **It is taken orally, 50mg once daily or every other day** and has minimal side effects. It causes withdrawal symptoms in people who are physically dependent on opioids. Naltrexone can also be administered as a **low dose implant**, put under local anaesthesia in the left iliac fossa where it dissolves slowly. Implants can remain effective for **30-60 days**. The implant has not been shown scientifically to be successful in 'curing' the patient of their addiction, although it provides for a better solution than oral naltrexone for compliance reasons.

Naltrexone treatment is started after an individual is no longer dependent on opioids and is fully withdrawn from opioids to avoid precipitating a rapid and unpleasant withdrawal syndrome.

Psychosocial interventions include individual and group counselling, family therapy, peer support groups (self-help groups), cognitive behavioural therapy (CBT), linkage to employment and volunteer work. Combination of naltrexone with either Cognitive Behavioural Therapy (CBT), Contingency Management and Family Therapy produce increased retention on naltrexone. Using legal pressure (individuals sentenced to treatment by courts) to mandate people to take naltrexone can greatly increase retention on naltrexone and outcome success.

It is important to have routine assessments and educational strategies to the client and family members. Patients are more likely to continue with psychosocial interventions if they enjoy them or consider them as appropriate for their needs.

d) Inhalants

Management of Withdrawal Symptoms

Pharmacological management: Benzodiazepines can be given to reduce symptoms and prevent psychosis, irritability, insomnia and violent behavior. Other presentations are treated symptomatically.

Psychosocial management: includes individual therapy, group therapy and mutual help groups such as Narcotics Anonymous.

Management of intoxication

Inhalant use can cause damage to the heart, kidney, liver and other organs. Inhalants starve the body of oxygen and force the heart to beat irregularly and more rapidly. Users can experience nausea and nose bleeds and lose their sense of smell.

Rapid intoxication and rapid resolution occurs.

Management involves immediate withdrawal of inhalants, mild sedatives and supportive care.

4.2.2 Hallucinogens

Management of Withdrawal Symptoms

Symptomatic management; antipsychotics, antidepressants, sedatives, analgesics and antipyretics among others.

Management of intoxication

Patient may present with confusion and hallucinations

Verbal assurance and talking down can help. Lorazepam and other benzodiazepines may be used.

Anticholinergics or stimulants are contraindicated as they worsen the confusion and hallucinatory phenomena.

a) Cannabis

Management of Withdrawal Symptoms

In cannabis withdrawal, one may present with irritability, anger, aggression, nervousness or anxiety, sleep difficulty (insomnia or disturbing dreams), decreased appetite or weight loss, restlessness, depressed mood or other physical symptoms causing significant discomfort such as abdominal pain, tremors, sweating, fever, chills or headache.

There is no evidence based management, however, symptoms are managed as they present.

Mirtazapine, Quetiapine, Antiemetics,

Cannabis induced psychosis should be managed with the appropriate neuroleptics, such as Haloperidol.

Management of intoxication

The patient may present with agitation and anxiety. Cannabis intoxication may mask psychotic and panic disorders and mood symptoms. These must be addressed.

Pharmacological management: Benzodiazepines such as Lorazepam 1-2mg can be used to relieve agitation and anxiety. **Antipsychotics such as Haloperidol 2.5-5mg (up to 10mg)** can be used if there is perceptual disturbance.

Psychosocial management: verbal support and reassurance.

Other interventions include Psycho-education, Brief Interventions, Cognitive Behavioral Therapy (CBT), Motivational Enhancement Therapy (MET) and Family Therapy (FT).

4.2.3 Stimulants:

Management of Withdrawal Symptoms

This is referred to as the 'crash' and is less well defined than syndromes of withdrawal from central nervous system depressants. Depression is prominent and is accompanied by malaise, inertia and instability. The greatest risk from the distinctive stimulant abstinence syndrome is that one may do harm to oneself or others. Because withdrawal-related dysphoria and depression can be particularly severe in stimulant users, risk of suicide is intensified, and sensitive management is essential.

There is no specific pharmacological detoxification regimen. Pharmacological treatment depends on symptom emergence; continuing agitation and persistent inability to fall asleep during withdrawal may also be treated symptomatically. Chlordiazepoxide 0-25mg nocte, for a few days may provide amelioration of agitation and insomnia. Benzodiazepines may also be used for short periods (less than 2 weeks).

Management of intoxication

Management is symptomatic. The post intoxication 'crash' or acute dysphoria and depression tend to resolve in 24-48 hours. Rest and supportive care is important. If in severe intoxication, one may require admission and intensive care management.

Beta blockers, like Propranolol may decrease the autonomic arousal and limit the risk of cardiovascular complication. Psychotic symptoms can be controlled by low doses of sedating antipsychotics such as Quetiapine 50-100mg or Chlorpromazine 50-100mg. Benzodiazepines can also be used to treat stimulant intoxication and have a lower risk of inducing seizures than antipsychotics.

Reducing the risk of violence

Medical personnel must be prepared for the paranoia, aggression, and violence that often accompany stimulant use. These personnel should keep the client in touch with reality by identifying themselves, using the client's name, and anticipating his concerns. Place the client in a quiet, subdued environment with only moderate stimuli. Ensure sufficient space so that the client does not feel confined. Have the door readily accessible to both the client and the interviewer, but do not let the client get between the interviewer and the door.

Acknowledge agitation and potential for escalation into violence by reassuring the client that they are aware of his distress; asking clear, simple questions; tolerating repetitive replies; and remaining nonconfrontational. Foster confidence by listening carefully, remaining nonjudgmental, and reinforcing any progress made. Reduce risk by removing objects from the room that could be used as weapons and discreetly ensuring that the client has no weapons. Be prepared to show force if necessary by having a backup plan for help and having chemical and physical restraints immediately available. All medical or emergency staff to work as a team in managing volatile clients

a) Nicotine

Nicotine replacement therapies combined with behavior change programs providing psychological support and skills training result in the highest long-term abstinence rates.

Generally, rates of relapse for smoking cessation are highest in the first few weeks and months and lessen considerably after about three months.

Nicotine replacement products maintain the patient on nicotine without smoking. This helps to lessen the body's craving for nicotine and to reduce withdrawal symptoms. They come in several forms: **trans-dermal patches, gums, lozenges, nasal sprays and inhalers.** The Nicotine gums, patches and lozenges can be bought over-the-counter. The nasal spray and inhaler require a doctor's prescription.

Nicotine Gum comes in strengths of 2mg and 4mg, as chewing gum or White Ice Mint
 If one smokes more than 25 cigarettes a day, use 4mg of nicotine gum
 If one smokes less than 25 cigarettes a day, use 2mg nicotine gum,

Follow the 12 week schedule below:

Weeks 1 to 6	Weeks 7 to 9	Weeks 10 to 12
1 piece every 1-2 hours	1 piece every 2-4 hours	1 piece every 4-8 hours

One should not eat or drink for 15 minutes before or while chewing the nicotine gum. To improve chances of quitting, use at least 9 pieces per day for the first 6 weeks. Do not use more than 24 pieces a day. It is important to complete the 12 week treatment.

Nicotine Transdermal Patch comes in strengths of 5mg/day and 7mg/day. Apply to clean, dry non-hairy area of skin (upper arm or shoulder). Apply new patch in the morning after waking up, and wear it for 24 hours, unless vivid dreams or insomnia occur (then remove the patch before bedtime). Do not cut the patch.

If one smokes more than 10 cigarettes a day:

Regimen	Weeks 1 to 6	Weeks 7 to 8	Weeks 9 to 10
21/14/7 mg regimen	21mg patch once daily	14mg patch once daily	7mg patch once daily
15/10/5 mg regimen	15mg patch once daily	10mg patch once daily	5mg patch once daily

If one smokes less than 10 cigarettes a day:

Strength	Weeks 1 to 6	Weeks 7 to 8
14/7 mg regimen	14mg patch once daily	7mg patch once daily
10/5 mg regimen	10mg patch once daily	5mg patch once daily

It is important to complete the full program but some may need to use for longer duration.

Bupropion is an antidepressant that can help an individual stop smoking. Although it does not contain nicotine, it can help one resist the urge to smoke. It is taken as a pill and requires a doctor's prescription. It is often used for 7-12 weeks, beginning 1 or 2 weeks before smoking is stopped. It can be used for smoking cessation maintenance for up to 6 months. Side effects may include insomnia and dry mouth.

Varenicline is the first treatment that specifically targets the neurobiological mechanism of nicotine dependence. Studies show that it successfully stimulates dopamine (the brain's pleasure chemical) and blocks nicotine receptors. This reduces nicotine withdrawal symptoms and cravings, helping prevent a full relapse. It also blocks the effects of nicotine if one begins to smoke again.

Varenicline is a prescription medication, sold in tablet form. It is generally prescribed for 12 weeks. If one quits smoking during that time, the doctor may prescribe varenicline for another 12 weeks to enhance long-term success. Side effects include nausea, vomiting, gas, headache and insomnia.

4.2.4 Medically Assisted Therapy (MAT)

MAT is the use of opioid agonist medication as maintenance treatment under medical supervision for persons with opioid use disorders. The most commonly used medication for MAT are methadone and buprenorphine. These medications relieve opioid withdrawal symptoms and drug craving without causing acute intoxication. They act over longer durations hence enabling patients to participate in other productive activities. Since they are administered orally or sublingually, there is reduction of harms associated with injecting drug use.

MAT in Kenya is available in specialized clinics that provide comprehensive interventions for persons who have opioid use disorders as part of harm reduction interventions as recommended by WHO/UNODC as per the table below.

WHO /UNODC Comprehensive package for HIV Harm Reduction Among PWID/
<ol style="list-style-type: none">1. Needle and Syringe Exchange Programs (NSP)2. Medically Assisted Therapy (MAT) and other drug dependence treatment3. HIV testing and counseling4. Antiretroviral therapy5. Prevention and treatment of sexually transmitted infections6. Condom programs for IDUs and their sexual partners7. Targeted information, education and communication for IDUs and their sexual partners8. Vaccination, diagnosis and treatment of viral hepatitis9. Prevention, diagnosis and treatment of TB

Benefits of opioid maintenance therapy

- Reduction in injecting behavior
- Improved adherence for other treatment, especially treatment for HIV, tuberculosis and viral hepatitis
- Reduction in opioid use
- Reduced overdose related deaths
- Reduction in criminality
- Improved community and family reintegration
- Improved productivity

4.2.4.1 Methadone

Methadone is a synthetic opioid medication that is used for maintenance therapy for persons with opioid use disorders. It is available as liquid and tablet formulations that is administered orally once daily

The aim of methadone maintenance treatment is to improve the quality of life of opioid-dependent patients, reduce the potential harm of using illicit drugs, reduce mortality and reduce criminal activity. It also attracts and retains more patients in treatment compared to other treatments.

Clinical Pharmacology

Methadone is a potent synthetic opioids agonist, which is well absorbed orally and has a long, plasma half life of 24 to 36 hours hence is taken once daily. Following ingestion of oral methadone, peak plasma levels are reached in 2-4 hours but onset of effects occurs approximately 30 minutes after ingestion.

Methadone reaches steady state in the body (where drug elimination equals the rate of drug administration) after a period equivalent to 4-5 half-lives or approximately 3-10 days.

Methadone is a safe medication for acute and chronic dosing when taken appropriately.

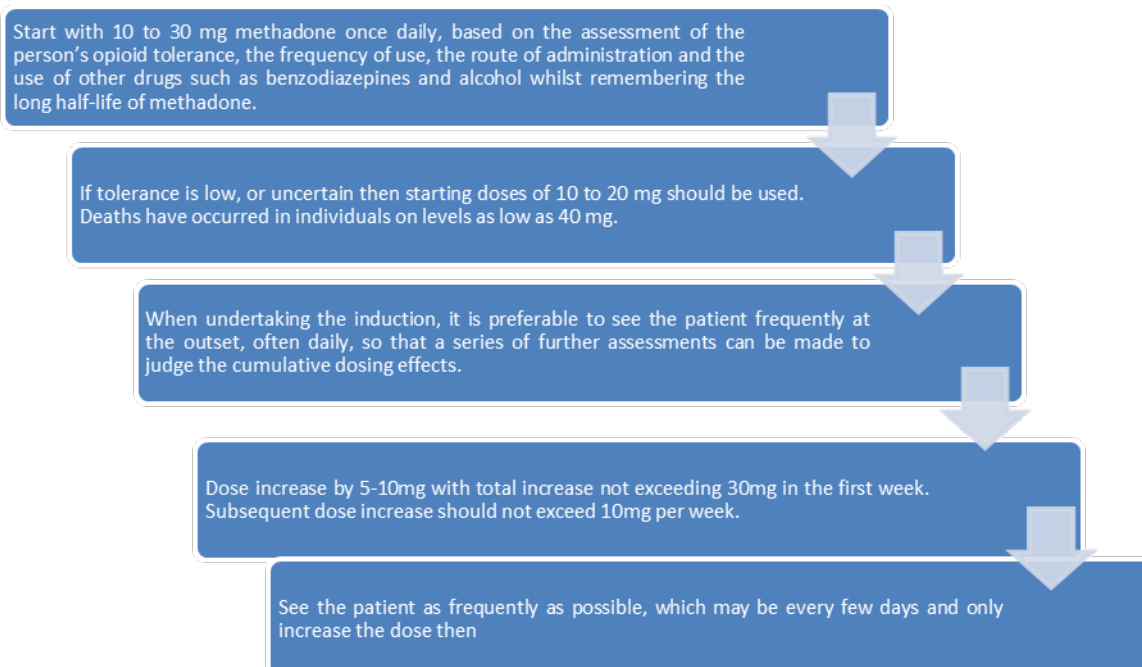
Its primary side effects, like other opioids include nausea, constipation, weight gain, change in libido, drowsiness but may be less severe. There is no evidence of significant disruption in cognitive or psychomotor performance with methadone maintenance or organ damage with chronic dosing

Induction and dose Titration

Before starting methadone for the first time, confirm opioid dependence by history, physical examination, urine drug screening and check for objective signs of opioid withdrawal. Never start methadone without evidence of opioid dependence.

Preferably, before commencing induction the patient should have stopped use of other opioids for at least 6 hours. Generally, doses of 10-30mg are safe for induction.

Consider induction with 10-20mg for clients >60 years, recent use of Benzodiazepines and other sedatives, antipsychotics, alcohol dependence, respiratory disorder, CNS depression, cardiac disease/arrhythmia and/or other drugs that will interact significantly with methadone.



After stabilisation, the patient should feel comfortable throughout 24 hours with no subjective or objective withdrawal before doses and no sedation or euphoria after doses. Stabilisation involves finding a suitable dose that keeps the patient engaged in treatment without the need to supplement with heroin and other drugs. The aim is to enable the patient to put their dependence into the background while tackling any associated health or social goals. Attempts to keep the dose minimal, leaving the patient with daily morning craving or disturbed sleep due to falling serum levels, are counter-productive.

Optimal outcomes with methadone maintenance occur when the dose is right, usually between 60 to 120 mg, though some clients may require higher or lower doses, and when other psychosocial interventions are also provided concurrently.

Drug Interactions with Methadone

Common Effects of Drug Interaction	List of Drugs
Increase metabolism by liver thus lower blood methadone levels	<ul style="list-style-type: none"> • Phenobarbitone, phenytoin, carbamazepine, • ARVs ; Nevarapine, Efavirenz, Saquinavir • Glucocorticoids • Anti-tuberculosis drugs (rifampin, rifabutin) • Alcohol and tobacco smoke
Slow down metabolism of methadone by liver thus increase blood levels	<ul style="list-style-type: none"> • Broad-spectrum antifungals and anti-bacterials (clotrimazole, ketoconazole, itraconazole, etc.) • ARVs ; Zidovudine, Ritonavir • Hormones (progesterone, ethinylestradiol, dexamethasone, raloxifene) • Calcium channel antagonists (nifedipine, verapamil, diltiazem) • Antibiotics (erythromycin, ciprofloxacin, chloramphenicol, isoniazid, enoxacin etc.) • SSRIs ; amitriptyline, sertraline, fluvoxamine • SNRIs (venlafaxine, nefazodone)
Block effect of methadone	<ul style="list-style-type: none"> • Pentazocine • Naltrexone • Naloxone
Other medications with interactive effects	<ul style="list-style-type: none"> • Cocaine can increase the dose of methadone required. • Methadone increases the level of AZT and desipramine in the blood.
Drugs that may increase cardio toxicity:	<ul style="list-style-type: none"> • Erythromycin. • Fluconazole • Amitriptyline • Fluoxetine • Ciprofloxacin
Drugs that cause CNS depression	<ul style="list-style-type: none"> • Benzodiazepines • Other Opioids • Alcohol • Tricyclic antidepressants

4.2.4.2 Buprenorphine

Buprenorphine is an effective and safe medication for use in the treatment of opioids dependence as maintenance treatment or in detoxification. It is a partial opioids agonist, appears safer in overdose than methadone and may have an easier withdrawal phase.

Clinical Pharmacology:

Buprenorphine is a semi-synthetic opioid with mixed agonist-antagonist actions and its primary action is as a partial opioid agonist. Buprenorphine's opioid effects increase with each dose until at moderate doses they level off, even with further dose increases. This "ceiling effect" lowers the risk of misuse, dependence, and side effects. Because of buprenorphine's long-acting agent, many patients may not have to take it every day.

Buprenorphine sublingual tablets contain buprenorphine hydrochloride and are available in 2 mg and 8 mg strengths. The tablets are administered sublingually because it has poor oral bioavailability (inactivated by gastric acid and a high first pass metabolism). Fixed dose

combination of buprenorphine and naloxone is also available at the ratio of 4:1, buprenorphine/naloxone tablet, designed to decrease the likelihood that people will dissolve and inject buprenorphine. If a person with opioid dependence takes a buprenorphine/naloxone tablet sublingually, they will get predominantly the buprenorphine effect. If they dissolve and inject the tablet, they will predominantly get the naloxone effect and precipitated opioid withdrawal.

Advantages of Buprenorphine

- Milder withdrawal
- Convenient (dose every 2/7)
- Better receptor blocker
- Relative ease of use, i.e., ready transmission from heroin withdrawal state or methadone
- Easier to taper off than methadone
- Wide safety margin

Induction/Titration

Induction can be effected for patients using heroin, methadone or other opioid medication. Patients should be instructed to abstain from any opioid use for 12-36 hours (short-acting opioids -16 hrs; sustained release opioid medication -24 hrs; methadone -36 hrs) so that they are in mild withdrawal (minimum COWS score of 8-10) at time of first buprenorphine dose in order to avoid precipitated withdrawal.

i) Induction of Patients Physically Dependent on Opioids

Consider starting treatment on a Monday or Tuesday, preferably earlier in the day. Avoid Fridays. Sublingual tablets must be held under the tongue for several minutes to dissolve. Instruct the patient to: start with a moist mouth, but avoid acidic drinks (coffee or fruit juice); not talk; keep dissolving the tablet under the tongue; not swallow until the entire tablet is dissolved.

DAY 1:

- First dose: 2-4 mg sublingual buprenorphine
- Monitor for up to 2 hours after first dose
- Relief of opioid withdrawal symptoms should begin within 30-45 minutes after the first dose
- Review and increase dose every 2-4 hours, if opioid withdrawal subsides then reappears
- Aim for a dose of 8-12 mg in the first 24 hours.
- If opioid withdrawal appears shortly after the first dose, it suggests that the buprenorphine may have precipitated a withdrawal syndrome, caused by the high affinity of buprenorphine displacing other opioids from opioid receptors.
- If it occurs, reassure the patient and offer symptomatic treatment such as lofexidine as appropriate. If withdrawal symptoms are severe, do not prescribe more buprenorphine until the opiate withdrawal symptoms have settled.

ii) Induction of Patients Physically Dependent on Long-acting Opioids (Methadone):

Transfer from Methadone Maintenance Treatment to Buprenorphine

- Taper the methadone dose and stabilize the patient on 30mg (1-2 weeks)
- On the last day on Methadone, reduce dose to 15mg
- On the next day, no methadone.
- Induction of Buprenorphine on the following day.

The patient should not receive further methadone once Buprenorphine induction has started. Use similar procedure as that described for short-acting opioids though the day 1 dose can go up to a maximum of 12mg.

DAY 2:

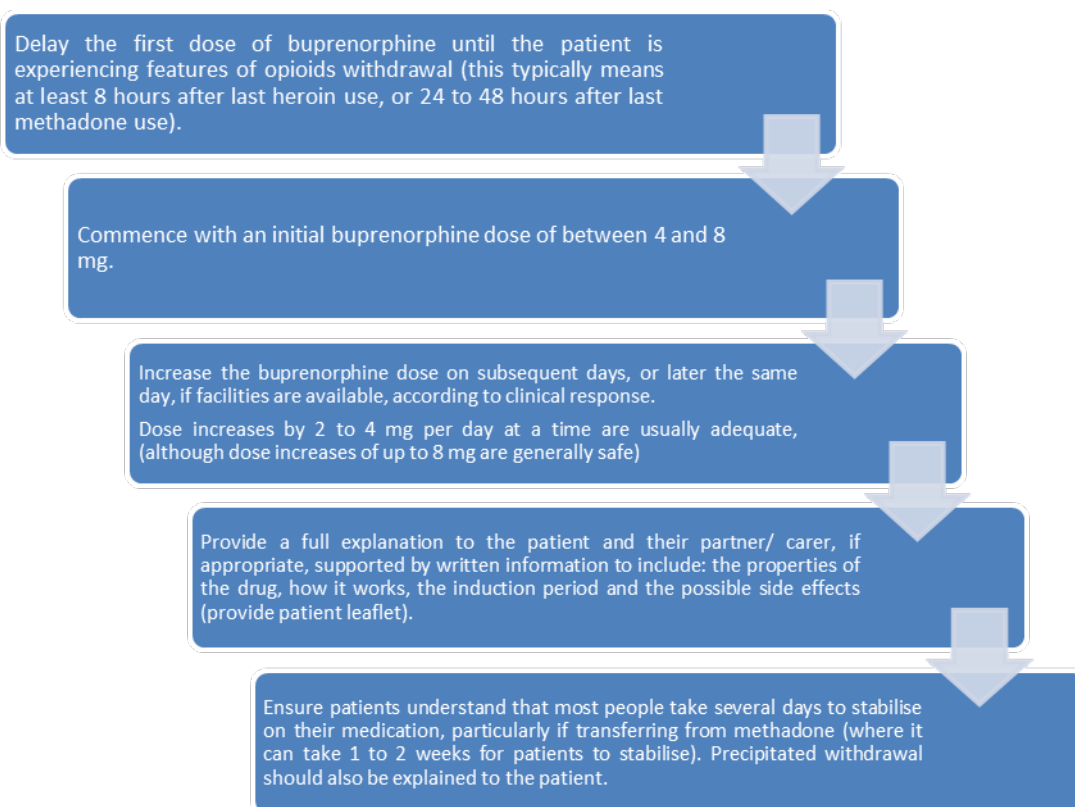
- Assess opioid use and symptoms since first dose
- Adjust dose accordingly:
 - If there were withdrawal symptoms after first dose, increase dose by 2-4mg to a maximum of 24mg for day 2
 - Reduce dose if the client was over-medicated

Stabilization

BEYOND DAY 2:

- If continued dose increments are requested after reaching 16-24 mg, wait for 5-7 days to reassess before any further dose increase
- Most patients can be stabilized between 12 -24 mg
- Standard range is 8 mg to 24 mg
- The maximum recommended daily dose is 32 mg; doses in this range increase the risk of diversion

Principles of safe induction with Buprenorphine



iii) Induction of Patients Not Physically Dependent on Opioids

Examples include:

- a patient at high risk for relapse to opioid use, such as a person who was incarcerated and has been recently released
- a patient who has never met criteria for physiological dependence (tolerance and withdrawal) but meets DSM 5 criteria for opioid use disorder

Process:

- First dose is 2 mg SL Buprenorphine
- Monitor for 2-4 hours
- Gradually increase dose (2 mg a day) over several days as needed
- Stabilize at dose that eliminates craving. (Typical dose range is from 6 mg to 16 mg)

Maintenance

The average daily dose is expected to be between 8 and 24 mg; most patients may not require more than 16 mg. Higher daily doses are more tolerable if taken sequentially or in divided doses rather than all at once. The patient should receive a daily dose until stabilized.

Once stabilized, the patient can be shifted to alternate day dosing (e.g., every other day, Monday, Wednesday, Friday, or every third day, Monday and Thursday)

Increase dose on dosing day by amount not received on other days (e.g., if on 8 mg/d, switch to 16/16/24 mg Monday, Wednesday and Friday).

Optimal outcomes with buprenorphine maintenance will occur when a range of other non-pharmacological interventions, such as counselling, support the prescribing of buprenorphine.

Laboratory monitoring of the patients on buprenorphine can be done as for patients on methadone. Buprenorphine dipstick test can also be performed.

Safety Overview of Buprenorphine

- Buprenorphine is a highly safe medication under both acute and chronic dosing circumstances.
- It is also safe if inadvertently swallowed by someone not dependent on opioids, because of its poor oral bioavailability and the ceiling on maximal effects.
- There is low risk of clinically significant problems in case of overdose; there are no reports of respiratory depression as compared to methadone
- It has primary side effects like other mu agonist opioids such as methadone (e.g., nausea, constipation), but may be less severe.
- There is no evidence of significant disruption in cognitive or psychomotor performance with buprenorphine maintenance.

Potential Drug Interactions with Buprenorphine

Buprenorphine is metabolized mainly by cytochrome P450 3A4, and has the potential to affect and be affected by numerous other medication (inhibitors, inducers and substrates) that use the same enzyme system, such as: nifedipine; erythromycin; rifampin; oral contraceptives; anticonvulsants (phenytoin, carbamazepine, phenobarbital); antidepressants (paroxetine, nefazodone, some tricyclic antidepressants) and grapefruit juice.

Other CNS depressants such as alcohol, sedatives, other opioids, should be avoided as they may have negative additive effects..

. As with other opioids, patients being treated with HIV combination therapies may require buprenorphine dose levels to be adjusted but these adjustments are likely to be minor, and in keeping with titration principles, sufficient to ensure patient comfort. For example, atazanavir/ritonavir may increase buprenorphine levels. It is advisable to offer substitute prescribing treatment in conjunction with an HIV specialist. Rifampin may cause reduced buprenorphine levels, causing withdrawal symptoms.

4.3 Psychosocial Interventions

This is an umbrella term that covers an array of non-pharmacological interventions for effective management of drug use. Psychosocial interventions help address motivational, psychological and environmental factors that contribute to use of alcohol and other drugs. They enhance pharmacological treatment efficacy by increasing medication compliance, retention in treatment, and acquisition of skills that reinforce the effects of medication. This helps promote abstinence and relapse prevention.

Psychosocial interventions refer to management of psychological and social behaviors involved in or contributing to alcohol and drug use disorders. Clients with problematic alcohol and drug use disorders report multiple health and social problems. It is often difficult to establish whether these problems were cause or effect of the clients alcohol and drug use. For example, peer influence will exert considerable influence on problematic alcohol and drug use disorders, with clients often limiting their social networks to those that reinforce alcohol drinking and drug use disorders.

Environmental factors such as housing and general living conditions are psychosocial factors that need to be assessed and be included in any treatment plan. They are important for management and relapse prevention.

These interventions range from psycho-education on the effects of alcohol and other drugs, support through drug withdrawal, motivational counseling, behavioral therapy, orientation to self-help groups and social services and appropriate referrals for ongoing care after discharge.

The specific types of intervention, amount and duration depend on the nature, complexity and temporal pattern of the alcohol and substance use, as well as presence of additional physical and psychiatric disorders.

In order to choose the appropriate intervention, it is important to conduct a psychosocial assessment which includes: history of drug use, motivation and readiness to change, family history, vocational history and treatment history.

WHO Recommendations for psychosocial management of various disorders

Disorder	Psychosocial Intervention
Alcohol Use Disorder	<ul style="list-style-type: none"> • Psychoeducation • Brief interventions • Cognitive Behavioral Therapy (CBT) • Motivational Interview (MI) • Motivational Enhancement Therapy (MET) • Family education/ Therapy • Behavioral Therapy • Social Network Therapy
Cannabis Use Disorder	<ul style="list-style-type: none"> • Psycho-education • Brief Interventions • Cognitive Behavioral Therapy (CBT) • Motivational Enhancement Therapy (MET) • Family Therapy (FT)
Psycho-stimulant Use Disorder	<ul style="list-style-type: none"> • Psycho-education • Brief interventions • Cognitive Behavioral Therapy (CBT) • Family Therapy (FT) • Contingency Management (CM) – should be adapted to the culture and population with input from the patient (may be monetary reinforcement)
Opioid Use Disorder	<ul style="list-style-type: none"> • Psycho-education • Brief interventions • Cognitive Behavioral Therapy (CBT) • Motivational Interview (MI) • Motivational Enhancement Therapy (MET) • Family Therapy (FT)
Behavioral Disorders	<ul style="list-style-type: none"> • Psycho-education • Brief interventions • Behavioral Interventions for children and adolescents • Caregiver skills training

4.3.1 Psychosocial interventions

i) Psycho-education

Addresses issues such as:

- Reasons of drug use (Why are they using drugs?)
- Effects of substances (Bio-Psychosocial and spiritual aspects)
- Signs and symptoms of substance use disorders
- Available treatment options

ii) Brief Interventions

It is a technique used to initiate change for unhealthy or risky behavior such as substance use. The aim is to identify current or potential problems with substance use and motivate those at risk to change their substance use behavior. In primary care they can range from 5 minutes of brief advice to 15-30 minutes of brief counseling. They are not intended for use for problematic or risky substance use. Consider 5As (Ask, Advise, Assess, Assist and Arrange).

The components of effective brief interventions can be described in the **FRAMES** framework (Miller and Rollnick, 2002):

- **F**eedback is given to the individual about personal risk or impairment
- **R**esponsibility for change is placed on the individual
- **A**dvice to change is given by the provider
- **M**enu of alternative self-help or treatment options is offered
- **E**mpathic style is used in counseling
- **S**elf-efficacy or optimistic empowerment is engendered

iii) Motivational Interviewing (MI)

A directive, patient-centered counselling style that enhances motivation for change by helping patients clarify and resolve ambivalence about behavior change.

Goal of MI:

To increase the person's intrinsic motivation based on the person's own personal goals and values. Motivational interviewing is the process of helping an individual move through the stages of change which includes:

- Pre-contemplation
- Contemplation
- Preparation
- Action
- Maintenance

Spirit of MI

- Collaboration: Working in partnership, not confrontation
- Evocation: Learning from the patient, not education/advice
- Autonomy: Patient is responsible for change, not Authority

Principle of MI

- Express Empathy
- Develop Discrepancy
- Rolling with Resistance
- Support Self-efficacy

Skills/Strategies of MI

- Open-ended questions
- Affirming
- Reflective listening
- Summarizing

Recognizing change talk:

Self-motivational statements (positive change talks):

- Desire- **I really want to be a non-smoker.**
- Ability- **I've quit before.**
- Reason- **I'd have white teeth if I quit.**
- Need- **I really have to do this.**
- Commitment language- **I'm going to do this**

iv) Cognitive Behavioral Therapy (CBT)

This is a form of 'talk therapy' used to teach, encourage and support individuals on how to reduce or stop their harmful drug use. It provides skills that are valuable in assisting people in gaining initial abstinence from drugs or in reducing their drug use. It also provides skills to help people sustain abstinence through relapse prevention.

It's based on an educational model on an assumption that behavior is learnt and its goal is to unlearn the maladaptive behavior.

Homework is the central feature and patient needs to complete these assignments.

- Explore ABC
- Triggers-What sets me up to use?
- Thoughts and feelings-What was I feeling?
- Behavior- What did I do then?
- Positive consequences- What positive things happened?
- Negative Consequences- What negative thing happened?

v) Behavioral therapies

It's a psychotherapy that seeks to extinguish or inhibit abnormal or maladaptive behavior by reinforcing desired behavior and extinguishing undesired behavior. This approach includes behavioral contracting where clients have opportunities to earn rewards for a specific desirable behavior

Key assumptions:

- a. The model holds that problem behaviors including thoughts, feelings and psychological changes can be modified by the same learning process that created the behavior in the first place.
- b. Addictive behavior is also seen to be on a continuum of behavior ranging from experimental use, social use to compulsive use. The difference in the place in the continuum is that certain individuals as a result of conditioning have adopted dysfunctional or maladaptive patterns of abuse whereas others are able to use these substances responsibly and moderately.
- c. Environmental and contextual factors are important determinants in the development of addictive disorders.

Principles of Behavior therapies:

Classical conditioning

Classically conditioned learned responses help explain the process by which environmental cues come to elicit urges or cravings involved in the initiation and maintenance of alcohol and other drug abuse.

According to this theory, addicts and alcoholics develop a conditioned response to specific setting (including people) associated with their alcohol and drug use.

Through classical conditioning, substance users actually condition many stimuli in the environment to the rituals, paraphernalia, and use of their drug of choice by repeatedly using the drug in specific settings with specific people and according to a specific ritual.

Operant conditioning

Operant conditioning theorists believe that behavior patterns are determined by the positive and negative reinforcements that occur as a result of the behaviors.

Substance abuse is believed to be influenced by two kinds of reinforcers:

- the positive reinforcement of euphoria and relaxation
- the removal of subjectively negative effects such as anxiety and tension.

The operant conditioning theorists believe that substance abuse both brings positive effect such as euphoria and serves to medicate or decrease negative effects such as anxiety and tension. They therefore focus on the reinforcing properties of alcohol and drugs to explain the initiation and maintenance of substance abuse.

This theory holds that people with addiction continue using because of the rewards and punishment they get through substance use. In treatment the rewards and punishment should be made more apparent and immediate. Positive reinforcement factors (Rewards) are believed to be more effective than negative reinforcement factors (Punishment) in treatment and recovery.

vi) Individual Therapy

A process through which clients work one on one with a trained therapist in a safe caring and confidential environment to explore their feelings, beliefs or behavior and work through challenging or influential memories, identify aspects of their lives that they would like to change, better understand themselves and others, set personal goals and work towards a desired goal.

This includes setting the resolve to stop substance use, teaching coping skills, changing reinforcement contingencies, fostering management of painful effects, improving interpersonal functioning and enhancing social support.

vii) Group Therapy

This is a meeting of two or more people for a common therapeutic purpose or a common goal. It differs from individual therapy in that a therapist creates open and closed ended groups in people previously not known to each other. It involves one or more therapists working with a group of people at the same time. Lessons learnt are practiced in real life.

Goals

- Purpose of group
- Instillation of hope
- Universality-Group members realize they are not alone
- Imparting information and empower with knowledge
- Altruism-Gain a sense of values by helping other group members
- Corrective recapitulation of primary family-provides proper relating with others
- Socializing
- Imitative behavior-adopt coping skills of other group members
- Interpersonal learning-how to develop supportive interpersonal relationship

Skills of group facilitation

- Opening and Closing Prayers
- Use of rounds
- Cutting off
- Use of Silence
- Shifting focus
- Holding Focus

Types of group therapies

- psycho-educational groups,
- skill development groups,
- cognitive behavior groups,
- support groups,
- interpersonal/process groups.

viii) Family and Marital Therapy

This is an approach aimed at resolving family and relationship issues with significant others in their lives and their social networks.

Goals of family therapy:

- Improvement of family functioning
- Enhancement of mutual understanding
- Emotional support among family members
- Development of coping skills and problem solving strategies in life dilemmas

Approaches of family therapy

- **Family system-** An approach that emphasizes the interdependence of family members rather than focusing on individuals in isolation from the family.
- **Family rules-** Families are viewed as units governed by rules. In most cases these rules are implicit or unspoken but serve to maintain a balance within the family unit.
- **The roles**
 - The chemically dependent
 - The chief enabler
 - The family hero
 - The scapegoat
 - The lost child
 - The mascot
- **Multi-dimensional**
- **Brief strategic**
- **Network family**

Techniques

- **Genogram-** A family tree diagram that represents the names, birth order, sex and relationship of family members. It is used to detect recurrent problems as well as to understand and cope with their problem
- **Family flow plan**
- **Reframing-** Involves tracking something out of its logical class and keeping it somewhere else.
- **Tracking-** The therapist listens intentionally to family stories to record sequence of events operating in a system to keep it the way it is. This process of sequence can be helpful to plan intervention.
- **Communication skills building**
- **Family sculpting**
- **Family photos**
- **Empty chair**

Process:

One has to first define the problem

It also involves:

- negotiating the contact
- establishing the context for a drug free life
- ceasing substance abuse
- managing the crisis
- stabilizing the family
- family reorganization
- recovery

ix) Crisis Intervention Therapy

This approach is an emergency psychological care aimed at assisting an individual return to normal levels of functioning and to prevent or alleviate potential psychological trauma. It is indicated for acute stress, anxiety, fear of the unknown, abuse or life events such as death, divorce, separation, assaults, rape and imprisonment, common with drug users.

Principles of crisis intervention

- Resource mobilization to be done immediately
- Facilitate understanding of the event by processing the situation or trauma
- Developing self-efficacy and self-reliance

Skills in crisis intervention

- Focusing
- Observing
- Understanding
- Immediacy

4.3.2 Social interventions

Specific psychosocial interventions include addressing factors such as:

- Emotions, attitudes and behaviors that are a characteristic of an individual/ client
- The social context, family, group, community and cultural factors that are characteristic within the environment that the individual /client lives
- Family support
- Peer based support
- Community integration and cultural support
- Social assistance and protection

People differ with regard to social and emotional strengths and weaknesses. Treatment Plans should address poor skills and encourage the use of existing positive skills for personal growth. Individuals with multiple social problems need to be linked into the appropriate local support networks.

4.3.3 Treatment models

i) Therapeutic Community (TC)

A TC is a structured method and environment for changing human behavior in the context of community life and responsibility.

Views of Disorder

- Disorder of the whole person
- Virtually every aspect of a person's life is affected

Views of the Person

TC residents are able to change their behavior and become productive members of society.

View of Recovery

Gradual building or rebuilding of a new life

Components Common to the Therapeutic Community

Community As Method: Individuals are taught to use the peercommunity to learn about themselves, to change lifestyle and identity

- Community Separateness
- Community Environment
- Community Activities
- Staff as Community Members
- Peers as Role Models
- A Structured Day
- Stages of the Program and Phases of Treatment
- Work as Therapy and Education
- Instruction and Repetition of TCConcepts
- Peer Encounter Groups
- Awareness Training
- Emotional Growth Training
- Planned Duration of Treatment
- Continuance of Recovery after TC program Completion

Treatment methods and Groups

- TC Treatment Methods

Behavior Management and Shaping Tools

- T.C. Groups

Staff and Residents learn to express identification, empathy and compassion when using these treatment methods.

T.C. Concept

- New behaviors are learned in increments and time is given to internalize change.
- Patterns of success and failures are given time to emerge.

Stages of the TC Program

- Stage I - Assessment
- Stage II - Safety Net
- Stage III- Treatment & Inter-phase
- Stage IV – Re-entry

How Residents Change in a TC

Residents are not simply adopting behaviors and attitudes to comply to TC Rules. Residents are expected to make changes in:

- Self-care
- Self-control
- Self-management
- Self- understanding
- Self- identity

Residents will internalize change when they begin to accept, practice and apply what they are learning in the TC to new situations inside and outside of the program.

Right Living in a T.C:

To Change Lifestyle Identity by:

- Abiding by community rules
- Remaining drug free

- Steadily participating in daily regimen of groups, meetings, work, and educational functions
- Meeting all obligations
- Maintain a clean physical space
- Maintain a clean personal hygiene.
- Act responsibly to self, others and community
- Display socialized behavior such as, civility, manners, respect, and keeping agreements
- Role modeling TC values of right living like being honest, self-reliance, responsible, concern and the work ethic

Relapse Prevention Skills

- Help clients identify their high-risk relapse factors and strategies to deal with them.
- Help clients understand relapse as a process and as an event
- Help clients understand and deal with alcohol or drug cues as well as cravings.
- Help clients understand and deal with social pressures to use substances.
- Help clients develop and enhance a supportive social network.
- Help clients develop methods of coping with negative emotional states.
- Assess clients for psychiatric disorders and facilitate treatment if needed.
- For clients completing residential or hospital based treatment, facilitate the transition to follow-up outpatient or aftercare treatment
- Help clients learn methods to cope with cognitive distortions
- Help clients work toward a balanced lifestyle
- Consider the use of a pharmacological intervention as an adjunct to psychosocial treatment
- Help clients develop a plan to manage a lapse or relapse.

Work in the TC

The primary purpose of work in a TC is to:

- reveal and address residents' attitudes, values, and emotional growth issues.
- Shape personal behavior
- Promote positive interpersonal relationships
- Create a sense of community
- Instill attitudes that promote right living
- Teach job skills

ii) Minnesota Model

The Minnesota Model is an abstinence oriented, comprehensive, multi-professional approach to the treatment of the addictions, based upon the principles of Alcoholics Anonymous. It espouses a disease concept of drug and alcohol dependence with the promise of recovery, but not cure, for those who adhere to it.

Basic belief about addiction:

Etiology and Course:

- Bio-psychosocial disease
- Progressive
- Loss of Control
- Cannot moderate

Principles and Goals of Treatment and who sets the goal

- Life-long abstinence from all drugs.
- 12 steps
- Behavior change
- Multi-disciplinary approach
- Program sets goal.

Basic Tenets

- Orientation to Alcoholic /Narcotics Anonymous
- Step work
- Group work
- Lectures
- One-on-one counseling
- Dynamic learning environment

Modalities available and preferences

- Detoxification
- Outpatient
- Inpatient/Residential
- Intensive Outpatient Program

Methods of treatment

- Former “addicts” seen as best to treat clients
- Group work dominates
- Families often involved in treatment

Techniques of treatment

- Confrontation of denial
- Education about disease
- 12 Step facilitation

Beliefs and interventions regarding relapse

- Relapse returns person to beginning of recovery again
- Exposure to triggers must be avoided

iii) The Matrix Model

The Matrix Model is a multi-element package of therapeutic strategies that complement each other and combine to produce an integrated outpatient treatment experience. It is a set of evidence-based practices delivered in a clinically coordinated manner as a program.

Treatment is delivered in a 16-week intensive outpatient program primarily in structured group sessions targeting the skills needed in early recovery and for relapse prevention. A primary therapist conducts both the individual and group sessions for a particular patient and is responsible for coordinating the whole treatment experience.

There is also a 12-week family and patient education group series and induction into an ongoing weekly social support group for continuing care. Weekly urine testing is another program component and participants are encouraged to attend 12-step meetings as an important supplement to intensive treatment and a continuing source of positive emotional and social support.

The elements of the treatment approach are a collection of:

- individual sessions (3 -10 sessions) delivered over a 16-week intensive treatment period.
- group sessions (early recovery skills, relapse prevention, family education and social support)

Patients are scheduled three times per week to attend:

- Two Relapse Preventions groups (Monday and Friday)
- One Family/education group (Wednesdays).

During the first four weeks patients also attend two Early Recovery Skills groups per week (these groups occur on the same days as the Relapse Prevention groups just prior to them). After 12 weeks they attend a Social Support group on Wednesdays instead of the Family/education group.

iv) The Twelve Step Program

This is a therapeutic program following the 12 steps which are the brain child of and originally used by Alcoholics Anonymous (A.A). The 12 steps are guidelines which have been stipulated to help people with addiction problems. Though the 12-steps were originally used by alcoholics anonymous to help people with alcohol dependence problems, the 12-steps have been extended to help people with other addiction problems. These steps have been extended to cover both chemical and behavioral problems.

Basic components of 12-step programs

All 12-step programs use the following tools to facilitate healing in their members:

- Meetings
- Sharing
- Literature
- 12-steps
- 12 traditions
- Sponsorship
- Helping each other
- Spirituality
- Anonymity

The therapeutic factors in the 12-step program (How 12-step programs heal members)

There are 9 identifiable factors that help members achieve healing in 12-step programs. In explaining these factors, A.A is used as the example for illustration since A.A is the oldest and most well-known 12-step program.

The nine factors are:

- Conscious raising(awareness creation)
- Social liberation
- Emotional arousal (catharsis)
- Self-re-evaluation
- Commitment
- Countering/ counter-conditioning
- Environmental control Rewards
- Helping relationships
- Rewards

The core of the A.A program consists of the following Twelve Steps:

Step One: We admitted we were powerless over alcohol- that our lives had become unmanageable.

Step Two: Came to believe that a Power greater than ourselves could restore us to sanity.

Step Three: Made a decision to turn our will and lives over to the care of God as we understood Him.

Step Four: Made a searching and fearless moral inventory of ourselves.

Step Five: Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.

Step Six: Were entirely ready to have God remove all these defects of character.

Step Seven: Humbly asked Him to remove our shortcomings.

Step Eight: Made a list of all persons we had harmed and became willing to make amends to them all.

Step Nine: Made direct amends to such people wherever possible except when to do so would injure them or others.

Step Ten: Continued to take personal inventory and when we were wrong promptly admitted it.

Step Eleven: Sought through prayer and meditation to improve our conscious contact with God, as we understand Him, praying only for knowledge of His will for us and the power to carry that out.

Step Twelve: Having had a spiritual awakening as the result of these Steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

CHAPTER 5

5.0 SPECIAL POPULATIONS

5.1 Definition

Special populations are groups whose needs may not be fully addressed by primary health care service providers. These groups may require specialized care either structurally or functionally as described in the table below:

CHARACTERISTICS	EXAMPLES	VULNERABILITIES	
Structural characteristics: defined by age and gender	Gender	<ul style="list-style-type: none"> • Women 	
	Age	<ul style="list-style-type: none"> • Children and youth (10-24 years) • Older people (> 60 years) 	
Functional characteristics: These are social, clinical or legal conditions shared by a certain group such as co-existing mental illness, being in prison settings or having a similar occupation.	Occupational	<ul style="list-style-type: none"> • Prison warders • Military (on duty and retired) • Police (in service and out of service) • Medical fraternity • Legal fraternity • Fisher folk • Truck drivers 	The risk factors or social status associated with their occupation contributes to problematic alcohol or drug use or their reluctance to seek help.
	Biological	<ul style="list-style-type: none"> • Pregnant women • People Who Inject Drugs (PWID) • People suffering from chronic pain. 	
	Psychological	<ul style="list-style-type: none"> • Those with dual diagnosis of mental illness and substance use disorders 	
	Social	<ul style="list-style-type: none"> • Offenders • homeless • lesbian • transgender • MSM • sex workers 	Vulnerability to HIV Criminal behavior

5.2 Types of Special Populations

5.2.1 Age Related Special Populations

i) Children and youth

They may develop substance use disorders during their formative years.

Those at risk include:

- runaway and street-involved youth
- youth in the juvenile system
- youth with a co-existing mental illness or learning disorder
- sexually-abused and exploited youth
- gay, lesbian, bisexual and questioning teens
- children of alcoholics or problematic drug users

These various adolescent risk factors can be mutually reinforcing and contribute to the development of substance use disorders.

ii) Older people

Also known as ‘hidden epidemic’ as most medics fail to connect alcoholism or prescription drug addiction with the problems typically associated with aging such as isolation, boredom or the loss of a spouse. Prescription drugs interactions with substance of abuse can have serious health risks for seniors.

5.2.2 Gender Based Specific Special Populations

i) Women

Females are considered a special population due to the unique way substance use impacts them and what cause addiction in them. For example, women experience the first signs of medical complications from alcohol and other drugs much sooner than men. Furthermore, women who drink excessively can experience changes in the menstrual cycle, menopause, and fetal development, higher incidence of mental illness compared to men, with higher risk of suicide and eating disorders. As possible causes for addiction, women in treatment tend to have a high rate of sexual abuse and have past episodes of physical violence.

Women face special challenges when getting help for drug and alcohol addiction such as greater resistance from family and friends and more negative consequences associated with treatment entry (lack of child care, job loss, and family responsibilities).

5.2.3 Occupation Specific Special Populations

i) Military

Military personnel both on active duty and retired often use alcohol in an attempt to cope with stress, boredom, loneliness, and the lack of other recreational activities. Furthermore, male and female military personnel have much higher rates of binge drinking than the normal population.

Mental health problems, particularly post-traumatic stress disorder (PTSD), is higher in deployed armed forces than in the civilian population this as alluded to by western research.

ii) Law enforcement

Law enforcers share the same occupational stressors like military personnel. Police officers and prison warders with emotional problems may not seek treatment for fear of being considered weak in a culture that prides itself on strength and authority. Shift work, similar to tours of duty, can strain relationships.

They add up to a special population that is at-risk for divorce, alcoholism, other emotional and health problems and if not treated, suicide.

5.2.4 At-risk populations

An at-risk population is a population with a common identified risk-exposure that poses a threat to their health than the general population. This often leads to substance abuse, with the exception of people who inject drugs (at risk for HIV/AIDS, hepatitis) and pregnant women (at risk for damage to the unborn fetus). These risk factors based on biological, psychological, and social characteristics coexist and interact with one another.

5.2.4.1 Biological Risk Factors

i) Pregnant women

Pregnant women who drink create a biological risk factor for their unborn child, known as Fetal Alcohol Syndrome Disorder (FASD). Children who are diagnosed with this condition often experience growth deficiencies, brain damage, facial abnormalities, skeletal abnormalities, heart defects, internal organ problems, vision and hearing problems, learning and behavioral problems.

ii) People who inject drugs (PWID)

Worldwide, roughly one-tenth of new HIV infections result from needle sharing. This is a hard-to-reach population, so harm reduction approaches are often used as an alternative to abstinence through addiction treatment.

People who inject drugs typically use heroin, cocaine, or a combination of heroin and cocaine known as “speedballing”.

iii) People with chronic pain

Many individuals, though not all with chronic pain conditions are often known as ‘accidental addicts’ because their progression to substance addiction is due to taking medications for the appropriate treatment of physiological pain rather than for the escape or mood-altering reasons found in the traditional addictive disorders. The medications used to treat chronic pain, however, are typically opiates, benzodiazepines, and muscle relaxants which, can lead to physical dependence, abuse, pseudo-addiction or even addiction.

Individuals with chronic pain and co-existing addiction often share a similar physical dependence to drugs but can have a different psychological reaction. Although people with chronic pain sometimes use their medications to help them relieve the psychological/emotional components of their pain; people with a straight addictive disorder are using their drugs for much different emotional reasons.

5.2.4.1 Psychological Risk Factors

Individuals with a dual diagnosis of co-existing addiction and mental illness are considered an at risk population. Persons with severe mental illness, such as schizophrenia and bipolar disorder, are particularly at risk for substance abuse.

Those with co-occurring addiction and mental illness have also been found to have

- higher relapse and hospitalization rates
- higher incidence of depression, suicide, and violence
- greater housing instability
- non-compliance with medications
- increased vulnerability to HIV/AIDS infection
- higher service utilization cost

5.2.4.2 Social Risk Factors

i) Homeless

They are considered a special population because they lack housing and have high-risk for addiction including chronic medical conditions, physical disability, criminality and patterns of social isolation. Limited housing resources, unemployment, and deinstitutionalization of the mentally ill have also been attributed to homelessness.

ii) Sex Workers

They are considered a special population due to the high prevalence homicide, suicide, alcohol and other drug related problems, HIV infection and accidents. Many turn to prostitution to escape poverty, mental illness, homelessness and a history of childhood abuse. Substance use can be the start of problems at school or home, or it can develop after a life of prostitution begins.

iii) Lesbian, gay, bisexual, trans-gender (LGBT)

They are considered at-risk for addiction because of higher prevalence of alcohol, tobacco, and other drug use than the general population, lower abstinence rates, higher rates of substance abuse problems, and a higher likelihood of heavy drinking later in life.

Substance abuse-specific risk factors for LGBT adolescents according to Substance Abuse Mental Health Services Administration (SAMHSA) include:

- sense of self as worthless or bad
- lack of connectedness to supportive adults and peers
- lack of alternative ways to view “differentness”
- lack of access to role models
- lack of opportunities to socialize with other gays/lesbians except bars
- risk of contracting HIV

iv) Offenders

Individuals incarcerated in jail or prisons are considered at risk for drug abuse due to the high prevalence of drug use among offender populations. Compared to the general population, offenders also have a high incidence of blood-borne infections such as HIV/AIDS and hepatitis. Offenders are also at risk due to the high potential for violence associated with trafficking.

5.3 Treatment interventions

5.3.1 Treatment of pregnant women

5.3.1.1 Treatment principles

Women who have a substance use disorder and then become pregnant represent a unique population in need of treatment for substance use disorders for two reasons:

First, a pregnant woman with a substance use disorder presents a challenge to health service providers because the health issue may impact both herself and her fetus – and, the treatment of which may adversely impact one or the other, or both members of the dyad. There are both medical and ethical challenges that come with providing treatment for drug use disorder to a dyad, rather than a mother and child separately.

Second, many pregnant women with substance use disorders have few, if any, parenting skills, and may lack basic knowledge about child development and childrearing. Moreover, once the baby has been delivered, the child may need medical and other comprehensive services, given the possibility of having experienced adverse fetal circumstances.

On the other hand, the opportunity to provide treatment for substance use disorders to pregnant women has tremendous potential for positive life-improving changes for both the mother and fetus and then the mother and child if the child is provided services too. Thus, there are often two ‘dyads’ that are involved in treatment of a pregnant mother with a substance use disorder – the mother-fetus dyad, and the mother-child dyad.

Issues for pregnant women with substance use disorders mirror the issues found for substance-using adults. Several of the issues are common to both men and women, such as lack of formal education or likely legal involvement. Several other issues may have a more adverse impact for women such as stigma, shame, and the lack of positive and supportive relationships – key reasons why women do not seek, enter or engage in treatment.

Women may be more likely than men to have experienced child abuse and/or neglect, undergone repeated exposure to interpersonal violence, be economically dependent on others for survival, have not been able to access formal educational or vocational opportunities, and have limited parenting skills and resources. With pregnancy the above mentioned issues may become even more prominent and present barriers to treatment entry, engagement and outcomes. Finally, women have better long-term outcomes when they receive treatments that focus on the issues more commonly found in women with substance use disorders compared to treatments that lack such a women-centred focus.

World Health Organization has recently stressed the unique needs of treatment services for pregnant women with substance use disorders. Women should not be ejected from treatment nor prevented from receiving treatment on the basis of pregnancy alone. Treating women for a substance use disorder is usually no more complicated than treating other populations of patients. Further, pregnant women with substance use disorders must have the same rights as other pregnant and non-pregnant persons. No woman with a substance use disorder should have involuntary abortions and sterilizations. Programs must have procedures and safeguards in place to prevent detention and forced treatment of pregnant women.

5.3.1.2 Treatment Methods Screening and Intake

Programs that provide treatment to pregnant women with substance use disorders and their children will typically have a screening and intake procedure that allows for determination of suitability of the women for entry into the program. At minimum, screening should assess three risk factors: urgent medical attention, detoxification and prevention of harm to self and/or others. Any one or more of the three problems might suggest that a woman be referred or transferred to a more specialized medical or psychiatric unit to manage the risk, at least on a short-term basis, prior to entry into the treatment program. Patient's needs and whether these fit with the services provided by the program should be considered the first step in establishing a patient-provider relationship and a chance to build rapport.

There should be written policy regarding screening and intake procedures to include the following elements:

- Description of the screening procedures and intake measures and/or interviews. To the extent possible, all intake measures and interviews should be validated in pregnant women with substance use disorders.
- Staff training requirements to conduct intake and screening and the indication what staff will have access to screening information.
- Policy regarding eligibility for admission to the program and what and how women are told about non-admission to the program and where else they could go to receive services so that acceptance and non-acceptance is fair and without bias.

All Clinical information should be kept in a safe and secure location, and entered into patient's program records.

Assessment

A clinical assessment would occur after a woman has entered into the program. Assessment has as its goal an examination of a woman's life in detail for 3 purposes: accurate diagnosis, appropriate treatment placement, and development of appropriate treatment goals.

The primary purpose of an assessment is to evaluate a woman's current life circumstances and gather information regarding her physical, psychological, family, substance use and social history to determine specific treatment needs, so that a treatment plan can be developed that matches her strengths and needs. Pregnancy specific information such as when she is due, past pregnancies and where she plans to deliver is also important.

An assessment should utilize multiple sources of information to obtain a complete history of the woman. There should be an initial assessment and then it should be seen as a fluid process. Assessment should be periodically planned to occur during treatment. Given changes in physical and psychological and social functioning, it is critical to assess a woman throughout treatment, and as she enters recovery. The frequency of assessment depends on the clinical course of treatment and the occurrence of any setbacks in treatment progress. Standards for assessment are similar to those standards for screening and intake as described above.

Treatment Planning

Pregnant women with substance use disorders need to be considered to be part of a treatment team that focuses both on her health and her infant's health. A pregnant woman should not be seen as a patient to be passively informed of her health status, and her approval sought for a course of action. Rather, she should be seen as actively participating in treatment decisions that affect not only herself but also her child.

Treatment Approaches

Treatment approaches for pregnant women with substance use disorders depend in large part on the substance(s) that are used, and the amount of such use. It may be possible to consider that a brief intervention provided by a primary care provider or obstetrician that focuses on education and risk review could be appropriate in certain circumstances. However, given the potential risks to the fetus, such interventions would likely need to be limited to very selective cases with a problematic substance use or mild drug use disorder. As such, most treatment programs for substance-using pregnant women would need to utilize more traditional treatment approaches.

There are two distinct dimensions that can be used to organize such treatment programs:

- **Treatment setting:** on one end of the treatment continuum setting would be outpatient treatment programs and on the other, long-term residential programs.
- **Treatment Intervention:** include pharmacotherapy and psychosocial interventions.

Special considerations for pharmacological treatments during pregnancy:

Pharmacological considerations are especially important for women with opioid use disorder where medication assisted treatment is essential to achieve favorable outcomes. Women should not be denied treatment with opioid agonist medication only due to her state of pregnancy. Opioid medication choices should be made on a patient by patient basis considering each woman's individual characteristics.

Both methadone and buprenorphine are effective treatments with favorable risk to benefit ratio but they are not always comparable in an individual patient. Research evidence shows a less severe neonatal abstinence syndrome (NAS) for buprenorphine than methadone exposure in utero, however, NAS is an easily identifiable and treatable condition that is only one aspect of the complete risk and benefit ratio decision to consider for a woman and her physician when making medication decisions during pregnancy.

Both methadone and buprenorphine effectively reduces opioid use and allows the patient to further benefit from psychosocial treatment. Medication dose should be re-assessed periodically during pregnancy for adjustments, usually upward in order to maintain therapeutic medication plasma levels and thereby minimize the risk of opioid withdrawal and craving to and reduce or eliminate drug use and maintain abstinence.

If a woman becomes pregnant while on either methadone or buprenorphine, she should continue on the same medication, especially when she has a good response to treatment. Medical withdrawal from opioid agonist during pregnancy is not recommended. Withdrawal is associated with high rates of treatment dropout and relapse with associated risk to the woman and the fetus, and opioid withdrawal increases the risk of miscarriage.

Comprehensive Treatment

A model of women-centered comprehensive treatment includes treating the whole person and mother-child dyad that includes trauma-informed group and individual treatment, childcare, transportation, medical care, obstetric and gynecology care, psychiatry, parenting education, early intervention, vocational rehabilitation, housing, and legal aid. Providing all the above services is necessary but not sufficient to make a treatment women-centered.

A women-centered treatment program for substance-using pregnant women needs to be sensitive to specific biological as well as cultural, social, and environmental factors affecting drug use in women in order to optimize the outcome of treatment.

Factors to consider include:

- Significant interpersonal relationships and family history play an integral role in the initiation of drug use
- Pattern of use, and continuation of substance abuse for women seeking treatment
- Support for recovery, and relapse
- Women are more likely to encounter obstacles in seeking and during treatment as a result of caregiver roles, gender expectations, and socioeconomic hardships. These barriers may result in delay in treatment entrance or presentation for treatment in a more severe stage of the disease with additional medical and psychiatric pathology
- Stigma serves to deter treatment entry for women.
- Women often enter treatment for substance use disorders from a wider array of referral sources
- Treatment programs should be able to accommodate children to allow mothers to receive treatment
- Women may require adjustment of medication dosages
- Women are more vulnerable to risk of domestic violence and sexual abuse, and their children may be at risk of abuse therefore a liaison with social agencies protecting children and women may be helpful
- Women are more likely to engage in help-seeking behavior and in attending treatment after admission
- Women may require women-focus treatment in a safe single-sex setting to obtain maximum benefit
- Women may need training and support on issues such as sexual health, contraception, parenting and child care

Delivery Protocol

Programs that include delivery services for pregnant women with substance use disorders should have a written delivery protocol that specifies potential issues with both delivery and patient management. At a minimum, discussion of where delivery will be conducted, who will be notified, what provisions she and her child need and how she will get these provisions are needed. Appropriate pain management procedures must also be in place. Many women with opioid use disorders are actually more sensitive to pain than women without such disorders. Untreated pain can trigger substance use relapse and other adverse maternal outcomes and potentially infant outcomes if the mother is not able to care for the child.

Postnatal Treatment Protocol

All programs that provide services to pregnant women with substance use disorders should have a postnatal treatment protocol in place. Women should not be discharged from treatment due to pregnancy or postpartum status alone. It should also outline methods to support the mother-infant dyad, including at least basic parenting skills.

Breastfeeding

Although every effort should be made to encourage breastfeeding in substance-using mothers, breastfeeding on the part of post-partum women should be evaluated on a case-by-case basis. Decision about breastfeeding is particularly complex in the case of HIV-positive mothers, and for mothers with other medical conditions taking certain psychotropic medications for which breastfeeding would be contraindicated. Other contraindications or precautions regarding breastfeeding would occur in the case of maternal use of inhalants, methamphetamines, stimulants, tranquilizers, and alcohol.

Specific guidelines on this issue have been published to help physician make the best recommendation. The need for a case-by-case approach to breastfeeding in the case of substance-using mothers is based on an assessment of the mother's understanding of the impact of the substance secreted in breast milk as well as her substance use practices. Finally, it is important to recognize that many women may use more than a single substance, and little information is known about the impact on the newborn of multiple substances in breast milk. Hence, it is best in all these circumstances to reach clear, written agreements with mothers about their breastfeeding practices.

5.3.1.3 Specific requirements for the program

Staff Training

Any staff who have direct contact with patients (secretaries, office managers) must be knowledgeable and sensitive to the issues pregnant women face. All staff should be trained on who to contact if a woman goes into labor and where she should wait for staff to arrive or where she should go for medical help. Unlike other individuals who use substances, pregnant women are exposing their fetus to potential harmful substances. The vast majority of these women are conflicted, ashamed, and guilt-ridden about what they often see as their inability to 'control' their substance-using behavior.

Members of staff need to be aware of these feelings and concerns and be prepared to respond appropriately and supportively. Further shaming and stigmatizing women for substance use during pregnancy is not an effective method for preventing drug exposure to the fetus or improving the health of the mother.

Documentation

Regardless of the type of setting or intensity of services received, proper documentation of the treatment of a pregnant woman for substance use disorders should include all of the elements specified for general population of patients with drug use disorders such as a treatment contract, individualized treatment and management plan, and a treatment completion summary.

Programs that provide services to pregnant women with substance use disorders have an added burden regarding a proper documentation of all medical, psychiatric, and addiction services to assure that all necessary care is recommended and that there is an opportunity for a closely coordinated care between these various providers.

Summary

Treatment of pregnant women with drug use disorders is an evolving medical field. Best outcomes are for treatment that use all evidence based treatments while addressing the myriad of complex medical and psychosocial problems. With optimal treatment, outcomes of these mothers and babies can be significantly improved to assure that the children will be able to gain their highest potential and decrease the chance for the intergenerational transmission of drug addiction in those children.

5.3.2 Treatment of Newborn Infants Passively Exposed to Opioids in utero

The number of neonates born following intrauterine chronic exposure to opiates and other substances is difficult to determine. Factors contributing to this imprecision include lack of measurement and alterations in drug-taking patterns over time and geography. The outcome of newborn infants is enhanced if comprehensive medical, psychosocial and medication assisted treatment is provided for their mothers.

When these services are not provided, the newborn infant is at risk for prematurity, Intrauterine Growth Restriction, neonatal sepsis, stillbirth, perinatal asphyxia, poor mother–infant attachment, deprivation, neglect, Failure to Thrive, and Sudden Infant Death Syndrome.

One of the major conditions that may exist in 50-80% of in utero opioid-exposed newborns is Neonatal Abstinence Syndrome (NAS). NAS is defined as transient alterations in the central nervous system (e.g., irritability, high pitched cry, tremors, hypertonia, hyperreflexia, sleep disturbances), gastrointestinal system (e.g., regurgitation, loose stools, increase sucking reflex, dysrhythmic sucking and swallowing, poor intake with weight loss), respiratory system (e.g., nasal stuffiness, tachypnea), and the autonomic nervous system (e.g., sneezing, yawning). Newborn babies develop NAS from maternal use of illicit opioids purchased on the street or from prescribed medication given by the mother’s physician for her medical condition including methadone or buprenorphine used to treat her opioid use disorder.

5.3.2.1 Treatment of NAS

Treatment of NAS should include non-pharmacological interventions followed by medication treatment (when needed) after proper and consistent assessment. Supportive measures include: rooming-in, breastfeeding, offering a pacifier (non-nutritive sucking), swaddling snugly with hands available for sucking without overdressing, and skin to skin contact with mother. Newborns naso-pharynx should be aspirated and feeding should include frequent offerings (every 2hrs) of small amounts if poor feeding persists without overfeeding with positioning right side-lying to reduce aspiration if vomiting or regurgitation are prominent symptoms of NAS.

Initiation of pharmacological treatment of NAS should not be delayed. The most commonly used medications for NAS due to opioid exposure are oral morphine or methadone according to body weight and score. With neonatal abstinence from other substances (e.g. barbiturates, ethanol, and sedative hypnotics) generally phenobarbital is administered.

The goal of medication is to alleviate the symptoms of abstinence and calm the baby so that the usual functions of eating, sleeping and elimination are normal. Medication dose should be promptly escalated, preferably in response to the frequent assessments of NAS severity using validated instruments, and similarly promptly reduced as NAS symptoms decrease.

5.3.2.2 Specific requirements for the program

Staff Training

All health care staff caring for infants should be trained to identify the signs and symptoms of NAS as well as the neonatal conditions that may present in similar ways as NAS (e.g., septicemia, encephalitis, meningitis, post-anoxic CNS irritation, hypoglycemia, hypocalcemia, and cerebral hemorrhage).

Documentation

Any assessment for NAS should be recorded as should the medication and non-medication interventions provided to minimize NAS.

5.3.3 Treatment of Children and Adolescents with Substance Use Disorders

5.3.3.1 Treatment Principles

Types of children and adolescents who may present to treatment

- Victims of neglect, physical, sexual and emotional abuse.
- Children used in war and terrorism, are subjected many forms of violence, are kept illiterate, trafficked for profit, and used in the drug trade.
- Children who are victims of deprivation, poverty, famine, gender-based discrimination, displacement and various mental and physical health conditions.
- Children involved in the drug trade industry are victimized at each point of the drug trade; they are used in the growing, manufacturing, selling, buying, and distribution.
- Children whose families grow drug-producing plants are exposed to toxic residues and second and third-hand smoke.
- Children living in countries of conflict have been made vulnerable to dire risks in multiple ways.
- Child soldiers have easy access to drugs to keep them awake, make them fight, and perform other terrorizing behaviors as well as deal with trauma of violence. For them, drugs are used as a way to find temporary solace in an unsafe and unpredictable world.

Issues to Consider when Treating Children and Adolescents

Substance use disorders are critical paediatric illnesses. The earlier substance use starts, the greater is the risk for more rapid progression to heavy use and use disorders. Children who use substances are unlikely to it as a problem for themselves or others in their lives; however, substance use – both their licit and illicit - can harm the development of a child. Moreover, such children will very likely be in need of substance use and mental health treatment services in the future.

Children may reside with their families but may also live on the streets, being orphaned or rejected from their family, may be conscripted into the military, or live in correctional system institutions. As a result, treatment circumstances and settings for these latter two groups of children may be quite different than traditional outpatient or residential treatment, and may involve more outreach and drop-in centers than is typically found in treatment of substance use disorders of adults. Adolescents may be brought to treatment by their parents who are concerned about recent drug use.

Research on treatment for this population is limited and although there is encouraging evidence that psychosocial treatment is effective in older children, guidance regarding treatment for children has often been based on research findings from treatments provided to adults or adolescents. However, such an approach to treat children with substance use disorders may present unanticipated problems such as different response to medications in children in contrast to adults. Finally, many psychosocial treatments used with children need to be tailored to the level of cognitive development and life experiences of the children.

Other issues to consider when providing treatment for substance use disorders in children and adolescents include:

- Children and adolescent drug users have unique treatment needs related to their immature brain and cognitive functioning and limited coping skills related to incomplete psychosocial development
- Adolescents have high levels of risk-taking and novelty seeking and are very responsive to peer pressure
- Adolescents with drug use problems have high prevalence of co-morbid psychiatric disorders and family dysfunctions which need to be a focus of treatment
- Children and adolescents may less likely than adults to see the value of talking about

- their problems, they are more concrete in their thinking, less developed in their language skills, and may be less introspective than adults
- Behavioral treatment interventions must be adapted taking into account limited cognitive abilities of children and adolescents
 - Children and adolescents may have different motivations than adults to participate in treatment and to share common treatment goals with a treatment provider

Adolescence is a distinctive developmental period and adolescent brains are especially vulnerable to substance use disorders. Given the neurotoxic effects of drugs or alcohol on developing brain, substance use needs to be identified and addressed as soon as possible. Adolescents can also benefit from interventions for substance use even if they are not dependent on a substance.

Disrupting exposure to the substance as soon as possible may help minimize the risks for subsequent physical and/or psychological damage. Routine medical, school, or other health-related visits provide opportunities for asking adolescents about substance use and adolescents will respond honestly if they do not perceive immediate negative consequences for being honest. Legal, school, and family pressure can be important forces to have adolescents enter, stay in, and complete treatment.

Treatment of drug use disorders should be tailored to the unique needs of the adolescent and address the needs of the whole person, not only the drug use. Violence, child abuse, and risk of suicide need to be identified and addressed early in treatment. Monitoring substance use is key to treatment of adolescents, where the goal is to provide the needed support and additional structure while their brains are developing. In treatment, adolescents need more and different supports than do adults.

onset of sexual involvement and higher rates of sexual abuse among adolescents with drug dependence, testing adolescents for sexually transmitted diseases such HIV, as well as hepatitis B and C, is an important part of drug treatment. Treatment should also include strategies such as: social skills training, vocational training, family-based interventions, sexual health interventions including prevention of unwanted pregnancy and sexually-transmitted diseases. Treatments should attempt to integrate other areas of social involvement of adolescents such as school, sports, hobbies and recognize the importance of positive peer relationships. Treatment of adolescents should promote positive parental involvement where appropriate. Access to child welfare agencies must be available.

Drug use disorder and mental health treatment services should accommodate the unique characteristics and be flexible in identifying and addressing the needs of children and adolescents within a framework that best protects a child from harm and meets their individual health needs.

5.3.3.2 Treatment Methods Outreach Services

The goal of outreach programs is to identify children who might be in need of health-related services, and provide such services to the extent possible, given the constraints under which a child might be living (e.g., on the streets, incarcerated). Thus, outreach staff intend to target children known to be at risk, and then to serve as a conduit for necessary services.

These services would be intended to address any of a variety of problems, including health-related and mental- health-related treatment services. In outreach cases, screening may be conducted by interview on the part of the outreach staff, and its goal is to collect sufficient

information to determine need for referral and treatment in multiple areas known to be problematic for children in such circumstances where contact is made (e.g., street) and to be an active agent in arranging for such treatment. The cause and extent of the problem are secondary to simply initiating treatment.

Screening and Assessment

Traditional inpatient and outpatient programs that provide treatment to children will typically have a screening and intake procedure that allows for determination of suitability of the child for entry into the program. Thus, screening for three risk factors, at a minimum, is necessary as part of the admissions process: intoxication, threat for self-harm or harm to others and abuse (emotional, sexual and/or physical). Any one or more of the problems might suggest that a child be admitted to a more suitable in-patient treatment.

An assessment evaluates a child's current life circumstances and gathers information regarding her physical, psychological, family, and social history to determine specific treatment needs, so that a treatment plan can be developed that matches her strengths and needs. Standards use in screening and assessment of children should be no different than those use for other patient populations (see section 10.1.2 above).

Treatment Planning

Children with drug use disorders need to be considered to be part of a treatment team that focuses both on his physical and psychological well-being. A child should not be viewed as a patient to be passively informed of his health status, rather, he should be seen, along with his caregiver, as actively participating in treatment decisions. Additionally, early on in the planning process, decisions should be made regarding transitioning back to the community.

Treatment Approaches

Treatment approaches for children with drug use disorders depend in large part on the substance(s) that are used. As with other patient population, treatment should involve psychosocial interventions in combination with medication when appropriate. However, there is little research regarding the efficacy of these pharmacotherapies in the treatment of adolescents and even less with child substance use disorders and therefore none of the medication are approved for use in this population.

There is some support for the use of opioid agonist, especially methadone in adolescents when they are considered able to consent to such treatment and it should be used for adolescents with severe drug use disorder and high risk for continuing drug use. The consent should be provided by the parents and in compliance with national legislative policies. Adolescents with a short duration of opioid use disorder who have a lot of family and social support may respond to opioid withdrawal with or without naltrexone as a relapse prevention strategy. Appropriate pharmacotherapy should also be used to treat co-occurring psychiatric disorders as a part of integrated treatment plan that also involves psychosocial treatments.

Psychosocial approaches to the treatment of drug use disorders in children and adolescents should cover a wide range of their lives as possible using an individualized approach that takes into account their vulnerabilities and strengths. Examples of treatment approaches for substance use disorders in children and adolescents include the life skills approach, family-based interventions (e.g., brief strategic family therapy, family behavior therapy or multisystemic family therapy) and basic education. Adolescents will benefit from training in self-control, social skills, and decision making.

Gender-specific Issues in the Treatment of Adolescents

Recognition of gender differences should be included as an integral part of treatment in adolescents. Boys typically prefer mixed-gender groups, while girls prefer girls-only groups, reflective of differences in both the socialization and substance use histories of girls and boys. Given the much higher rates of physical abuse, sexual abuse, the exchange of sex for drugs among girls than boys, at least portion of a treatment program should be gender-specific. In girls, treatment may focus on unique vulnerabilities of girls such as depression and a history of physical and sexual abuse, while in boys treatment may focus on impulse control issues, disruptions in the school and the community, and a history of learning and behavioral problems however many of these issues will need to be address in all children.

5.3.3.3 Specific requirements for the program

Staff Training

Staff need to be educated not only in the treatment of children and adolescents with drug use disorders, but about developmental milestones and their age-appropriate cognitive, language, and social development. Children especially may not have the cognitive complexity to discuss issues and ability to fully articulate their feelings.

Staff must be aware of the legal status of children and the special protections that are in place for them. It is vital for staff to know and practice keeping same age groups together. It is well known that mixing older and more experienced substance users with younger less experienced patients can lead to worse outcomes for the younger children and adolescents.

Child Protection Policy

Programs providing treatment for substance use disorders to children, inclusive of adolescents, must have a child protection policy. This policy provides a safety net and protects children from or against:

- any perceived or real danger/risk to their life, their personhood and childhood,
- their vulnerability to any kind of harm and
- social, psychological and emotional insecurity.

Child protection refers to protection from violence, exploitation, abuse and neglect. It is integrally linked to every other right of the child. It should contain guiding principles that assert the respect for dignity, liberty and freedom of the child; the recognition of the best interests of the child; the belief that a child is entitled to express his/her opinion and can make decisions for him/herself; respect for the child's right to privacy and confidentiality; no tolerance of any form of abuse whether direct or indirect; belief that child protection is the responsibility of all staff, administration, board of directors, consultants, interns, and volunteers. It should also contain a code of conduct documenting what individuals should and should not do.

Physical Space

Regardless of the type of treatment setting, several issues must be considered. The name of the program should avoid stigmatizing, addiction-related names. The program should have a child-friendly atmosphere, including free and open play spaces with adequate play materials both indoors and outdoors. An adequate number of toilets and washrooms are needed for both staff and children. Classrooms should have adequate space for children to sit and move around freely.

In the residential centres, there should not be overcrowding in the rooms. For example, there should be at least 2 feet between each bed. Children of ages 7-13 need to be segregated from children that are 14 years of age or older to avoid negative influence. Additionally, older children should sleep in separate areas, taking into consideration cultural and safety considerations.

Documentation

Programs that provide treatment to children and adolescents should have clear and detailed records of services provided. Each child should have a registration number to track the child and a separate documentation file. All files must be locked with every child's confidentiality and privacy maintained. Treatment staff must have access to records that document the child's treatment course and status at last contact with a treatment staff member. Children should not be overburdened with documentation.

5.3.4 Treatment in Criminal Justice Settings

Over 10 million people are incarcerated worldwide (approximately 146 per 100,000) and in most instances, the majority of these individuals have a history of problematic drug use. Also, a large percentage of individuals with problematic drug use who are not currently incarcerated report having been incarcerated at least once.

It should be noted that the three International Drug Control Conventions do not compel Member States to enforce criminal justice sanctions for use and possession for personal use. The provision of treatment and rehabilitation services as a complete alternative to criminal justice sanctions, including incarceration, is clearly articulated for minor drug-related crime. Those who use drugs regularly and end up involved in the criminal justice system are often offered drug treatment services in an effort to break the on-going cycle of drugs and crime.

In confined settings, such as in jails and prisons, the criminal justice system has a "captive" audience that can benefit from providing effective treatment services. For those not confined, treatment services can be provided under a variety of conditions, such as probation or parole, diversion and drug court programs, and when appropriate, police referral to treatment rather than arrest. By making sure those who need treatment services receive them, significant decreases in drug use and criminal activity are likely to occur and public health outcomes are increased (e.g. decreased spread of Hepatitis C, HIV, etc.). Left untreated, individuals who have an extensive drug use and criminal history will most likely continue using drugs and committing crime, and posing a serious on-going public health threat.

Providing drug treatment and rehabilitation services in the context of the criminal justice system must be based on the same principles of evidence-based treatment like in any other medical field.

5.3.4.1 Goals

Evidence-based approaches, including interventions based on assessments of an individual's level of recidivism risk and criminogenic needs, can be effective in breaking the drug-crime cycle. The primary goal of these interventions is to provide individuals with the most appropriate type and intensity of services.

Providing low intensity treatment services to those who have serious drug-related problems typically fails to result in desired outcome. Similarly, providing high intensity treatment services to those with less serious drug-related problems also can be problematic, and sometimes can even make the situation worse by exposing the individual to others who are at a higher level of risk and needs. Decisions regarding matching individuals to intervention services and the tailoring of services to specific risk and needs should be based on matching the intensity of the individual's problems to the type and intensity of the services that are provided.

5.3.4.2 Types of clients

It is critically important to identify the most appropriate type of individuals that should receive drug treatment services and continuing care in the context of criminal-justice environment. People who use drugs and those with different degrees of severity of drug use disorders without any criminal behavior should not be incarcerated on account of their drug use.

The criminal behavior observed in most individuals with drug use disorders is most often secondary to the drug use disorder, criminal acts are sometimes committed to finance the drug purchase. The most effective intervention for such patients is the treatment of their drug use disorder and the criminal behavior usually stops when the patient stops using drugs. The offer of effective drug treatment is the best public health and public security response for individuals with drug use disorder and secondary low-level criminal offenses.

Populations suitable for treatment interventions in the context of criminal-justice system are those who have a drug use disorders and some degree of involvement in criminal activities that is to some extent independent of drug use. Drug use and criminal behavior in a person with drug use disorder could be independent or linked, but in any case the interference between these two problematic behaviors, in addition to interference from many other problematic life domains, changes the trajectory of each problematic behavior, usually for the worse, as evident by a greater level of criminal recidivism and more frequent relapses in individuals with drug use disorder that are also involved in crime.

5.3.4.3 Treatment models and methods **Screening and Assessment**

This is the key to treatment matching. Within the criminal justice system, the screening process often is considered part of determining “eligibility” for treatment. Subsequent assessment is used to determine “suitability,” such as results from a psychiatric assessment to determine if placement in a dual-diagnosis program is warranted. Because much of the information used in the screening and assessment process is based on self-report, it is critical that collateral sources of information (e.g., drug test results, correctional records) also be obtained when making treatment placement decisions. For example, within a community supervision setting, successive positive urine test results may need to trigger a referral to treatment services even if the individual denies using drugs.

Based on screening and assessment results as well as a review of existing information, concrete criteria to determine the most appropriate type and intensity of treatment need to be established and made part of policy governing treatment in criminal-justice setting. In particular, criteria for establishing drug use problems that require professional intervention as well as the degree of “criminal thinking” that warrants intervention need to be based on objective criteria, not on the subjective opinion of an interview or brief encounter with the individual.

The optimal type and level of treatment, including the choice of the most cost-effective intervention, will depend on the careful assessment of the severity of individual’s problems and the level of risk they pose to society. This is achieved through the proper use of validated screening and assessment instruments. Unfortunately, individuals with serious drug problems often are referred to a “one-size-fits-all” treatment approach without consideration of the individual’s level of risk and needs.

Risk for Re-Offending Principle

The most effective programs are those that can appropriately match the type of intervention to the individual patient. It is well established that programs that only provided sanctions or that provided services not based on the risk of the individual had little to no impact on outcomes, and in some cases, were associated with poorer outcomes than the untreated comparison groups.

As a result of these findings, many criminal justice systems have adopted an approach of reserving the most intensive treatment options for individuals with the highest levels of recidivism risk. Likewise, allocation of treatment resources should be more heavily invested in intensive services for individuals with higher recidivism risk. In most cases, those with a low risk for recidivism are likely to remain low risk, regardless of whether treatment services are provided or not.

Need Principle

The Need Principle states that services for individuals involved in the criminal justice system should focus on “criminogenic” needs, on addressing behaviors and attitudes that are associated with recidivism and that are amendable to change as a result of providing targeted treatment services. Specifically, services should target changes in antisocial attitudes, feelings, and associates.

Helping individuals improve self-management skills and gain prosocial skills have been shown to lead to better outcomes. Conversely, traditional treatment approaches that target general psychosocial constructs, such as trying to improve self-esteem without addressing the antisocial aspects of the personality, should not be a cornerstone of service delivery.

Research in this arena has concluded that there are four general categories of criminogenic need that need to be addressed: history of antisocial behavior, antisocial personality pattern, antisocial cognition, and antisocial associates, with four additional areas that warrant consideration (substance use, family, school or work, and leisure and recreation).

Responsivity Principle

Based on a comprehensive assessment of the individual (including an assessment of his or her learning style, level of motivation, gender, and ethnicity), a tailored treatment approach should be developed. For example, many individuals within the criminal justice system do not respond well to traditional didactic treatment approaches, therefore treatment services need to strive to include more visual-spatial approaches when delivering treatment content. Approaches based on deterrence and punishment, as well as those that lack structure, should be avoided.

Equity of services

The basic premise of health service provision in the criminal justice setting is that health services should be similar in type and scope to what is available at the community level. The sentence availed should not deprive that person of his right to access the health care service needed.

Linkage to services at the community level

In addition to equity in services inside and outside prisons, there should be a linkage between criminal justice system and community based services to avoid interruption of services and ensuring a sustained quality and continuity of care.

The structure of the treatment services

Most programs begin by providing individuals with highly structured treatment services, including a stringent toxicology monitoring, and reduce the intensity of services over time as progress is being made. Effective programs implement a range of incentives and, to a lesser degree, sanctions to help shape the individual's behavior.

Rewarding positive behaviors, such as providing the individual with a certificate of completion, helps to reinforce continued positive behavior. The use of negative reinforcement and punishers needs to be used far less frequently and administered in a timely and sure manner when used (e.g., immediate increase in the frequency of urine testing when a positive result is obtained).

A wide network of services needs to be provided

Given the multiple problems encountered by individuals with drug use disorders involved in criminal-justice system it is important that a treatment program can adequately address additional needs of patients such as housing, legal, financial, and family problems.

A continuum of treatment that includes aftercare is necessary to sustain recovery

To ensure that the patient will remain drug and crime free, treatment should continue beyond the primary treatment episode (aftercare). Sustaining treatment benefits require a continuum of care that is designed to assist an individual in transitioning to from corrections-based services to community-based services. Without the continuation of services, treatment gains typically are diminished or lost.

Unfortunately, there are many obstacles to providing on-going care, such as:

- fragmented nature of the criminal justice system
- lack of coordination between criminal justice practitioners and treatment providers
- absence of incentives and sanctions for individuals to remain drug free following unsupervised release from jails and prisons
- lack of community treatment programs
- the fact that treatment providers often are inexperienced in treating individuals involved in the criminal justice system.

Treatment as an alternative to incarceration

After years of increasing prison growth, alternatives to incarceration have been explored as a means for reducing the prison population. One of the popular approaches is to identify "low risk" individuals and providing them with intensive court or community supervision as an alternative to prison. This often includes requiring community-based treatment as a condition of supervision. This approach has been embraced for several reasons, including the fact that it gives the courts more sentencing options, saves resources, and helps keep families and communities together. Non-incarceration approaches for minor drug-related crime are specifically allowed under the drug control conventions.

Drug courts

Drug courts are an increasingly popular approach to providing an alternative to incarceration. A specialized branch of courts (drug court) is created within existing jurisdictions to oversee court-supervised drug treatment and community supervision to individuals who have serious drug-related problems. The structure of drug courts varies, but most require participants to complete random urine tests, attend drug treatment counseling, meet regularly with probation or court officers, and often participate in self-help groups.

Unlike the standard adversarial court proceedings, drug courts are considered supportive environments where judges will praise and reward individuals for successful program participation, limiting “punishment” to those who do not comply. While a promising diversion approach, the use of drug courts often is limited to non-violent individuals who have few (or no) prior convictions. In some cases, the drug court option is only provided after a plea of guilty occurs, therefore treatment is not immediately available to those involved in the criminal justice system that have an immediate need for it. In most drug court programs, however, individuals who successfully complete the program avoid prison or jail time and, in many cases, can have certain convictions (e.g., drug convictions) removed from their record.

Community corrections

Community correction is another alternative to incarcerating individuals who have serious drug use problems. Terms of supervision are placed on the individual with the threat that a violation could result in incarceration. In addition to taking random drug tests, being subject to home inspections, and remaining drug-free, supervision requirements may need one to participate in treatment services.

For the most serious offenders, intensive supervision probation (ISP) is often used and includes more frequent monitoring by the law enforcement practitioners as well as more frequent meetings. The use of “day reporting” is another option where individuals must report to a location like a probation office on a frequent (usually daily) basis. In some jurisdictions, there are treatment options dedicated to those under ISP and day reporting supervision.

Alternatively, “halfway houses” are provided when there is a need for intermediate housing during the transition from prison to the community. Individuals are required to remain within the halfway house when not at work, at court, or seeking medical treatment. Halfway houses typically provide 12-step support groups and, in some cases, provide treatment options dedicated for those residing within the halfway house.

Supervised community treatment

Supervised community treatment refers to the process of providing treatment services to those on under court or community supervision. As described above, this can include drug courts as well as different types of community supervision instead of incarceration. But in many cases, the drug-related offense does not warrant consideration of incarceration. In these cases, an individual can be placed directly under community supervision with a requirement that they receive probation or court supervised treatment services.

Although their freedom is curtailed, those under community supervision retain access to alcohol and drugs in the community, and therefore are at greater risk for continued drug use. And unlike those who are incarcerated, individuals in the community often struggle with meeting basic needs, such as finding appropriate housing as well as employment, contributing to their daily stress. However, remaining in the community helps maintain positive family relationships and address negative relationships (e.g., domestic violence).

5.3.4.4 Treatment interventions

In general, treatment intervention should be that same as available to general population (as described in prior chapters), with some considerations to address unique characteristics of individuals in criminal justice setting. However, treatment must always be voluntary and with an informed consent. All persons who access services, including individuals under the supervision of the criminal justice system, should have the right to refuse treatment.

Medication-assisted detoxification is often required as a first stage of treatment. If a correctional agency does not have in-house detoxification available, it is imperative that the individual be referred to outside medical services. Forcing individuals to go through withdrawal without medical attention is not only unethical, but it can be dangerous.

Outpatient treatment approaches that involve a period of intensive treatment followed by less intensive outpatient treatment provide a “step down” in treatment intensity and is particularly suited to those receiving intensive treatment services while incarcerated and who need continued, but less intensive, services once they return to the community. Decreasing intensity over time should be based on whether or not an individual is meeting the goals of treatment.

Residential treatment can be provided in dedicated units within a prison. Such programs are particularly valuable when targeting specific high risk populations, such as young offenders, females, those with psychiatric disorders. The dedicated residential environment allows for minimizing exposure to those who might victimize the individual (e.g., general prison population) and provides the ability to specifically target areas pertinent to the subgroup (e.g., addressing trauma among victimized women). Clients in residential programs are expected to cooperate with each other and collaborate on daily chores like preparing meals and doing laundry. By modeling and teaching problem solving, communication skills, goal setting, and working together to accomplish goals, this is a potentially highly-effective comprehensive treatment approach for those individuals with a history of problematic drug use. This approach, however, should not stand alone; all residential treatment should be followed by on-going services after the residential treatment program is completed.

Therapeutic community (TC) is a model of residential treatment that can be adapted to the prison population and has been found to be effective in randomized controlled trials (Smith et al., 2006). Prison-based TC programs should be located in a separate unit of the prison with the structure and services similar to comparable programs outside. The participation in this kind of treatment should be voluntary with inmates from the general prison population eligible to apply for admission. Some interventions that have been used in the TC have not been found to be effective in reducing recidivism or drug use and should be avoided. Such ineffective approaches typically incorporate a highly regimented, military-style schedule combined with confrontation, discipline, and behavior modification, in an effort to instill discipline and a strong desire to live a drug and crime free lifestyle in order to avoid the shock of experiencing these types of programs.

Self-help groups can provide critically important support for individuals in recovery from alcohol or drug problems. Self-help groups (NA or AA) exist across many settings, including in prison and in the community. Because many are religious based and many reject the use of medication-assisted treatment, it is important that these factors be considered before recommending or requiring an individual to participate in one.

Pharmacotherapy can be among most important elements of treatment for some substance use disorders. For example, methadone and buprenorphine are the standard of care in opioid use disorder while other approaches such as detoxification followed by naltrexone can be effective in preventing relapse. Decisions to incorporate medication-assisted treatment as part of an overall treatment approach needs to be considered on an individual basis but the sole fact of involvement with criminal justice should not play a role in making recommendation for medication-assisted treatment.

To reduce the risk of opioid overdose on discharge from prison, persons with a history of opioid use and their families and friends should be given naloxone to take home along with training in its use in the management of opioid overdose.

5.3.5 Specific requirements for treatment in custody environments

Providing treatment within custody environments presents an array of complex issues that need to be addressed. These range from deciding on logistics, such as who should provide treatment, where should it be provided, and when should it be provided to taking steps to making sure the best possible treatment is provided.

One of the more complex issues relates to the most appropriate staffing of treatment programs. In some prisons, in-house staff members are trained to provide treatment services, while in other prisons, outside treatment providers are contracted to deliver services. The decision should be based on which approach is likely to achieve the best outcomes at the lowest possible costs, and in general the outcome depends on the quality of services provided rather than on the affiliation of staff members.

Ideally, those participating in treatment should be isolated from other incarcerated individuals in order to maintain a pro-social environment. Having individuals who are in recovery return to the general prison population can easily undermine the gains achieved while in treatment given the negative climate that often exists within the general prison setting.

When standalone treatment environments are not possible, then efforts to minimize exposure to external risk factors should be made (e.g., such as having separate dining and recreation times). The amount of time remaining on a sentence also impacts treatment decisions as an individual may be in the middle of treatment and then be released from prison prior to completing treatment. Agencies need to consider the amount of time an individual will be incarcerated and then require completion of assigned treatment services prior to release.

5.3.6 Pain management in patients with a history of opioid dependence

Managing pain in patients with a history of opioid dependence can pose substantial challenges. There is a lack of clinical consensus and research-supported guidance. In addition, pain in these patients is often underestimated and undertreated.

People with current or past problems of opioid dependence are at higher risk of serious harm from treatment with opioid analgesics. These harms include relapse to addiction, risk of overdose, and inappropriate use. However, history and/or risk of opioid use or abuse should not automatically, or necessarily, preclude opioid treatment for a patient. Careful use of opioids together with risk management tools and techniques can reduce the potential harms.

5.3.6.1 Prescribing principles for such patients include:

1. taking a thorough drug history and making a comprehensive assessment of pain and risk
2. implementing multimodal treatment therapies that maximise non-opioid analgesics, adjuvant medicines and non-drug therapies and avoid sole reliance on opioids
3. never continuing claimed previous treatment without independently verifying the claims directly with the previous prescriber, and making your own thorough assessment of the patient
4. using risk management strategies that monitor compliance, aberrant behaviour, and supply and diversion, and include specialist support
5. providing patient communication and information that is non-judgemental and empathic, framed as your concern about the patient's safety.³

5.3.6.2 Assessing patients with a history of substance use disorder

Before prescribing an opioid it is essential to take all reasonable steps to ensure that a therapeutic need does exist. For pain control, this involves a comprehensive pain assessment as well as a complete understanding of the patient's current and past drug-related behaviours, social pressures and psychological state. Patient subjective reporting of pain is the gold standard for assessing pain in patients with or without opioid-dependence history. Requirement for analgesia, including opioid medicines, should be led by this assessment.

An opioid risk tool can help identify individuals at risk of developing aberrant drug-related behaviours, who may require more intense monitoring. These behaviours can include deliberate misuse with the aim of experiencing non-therapeutic effects and/or on-selling the medicines for profit.

Risk factors most predictive of development of a substance use disorder (SUD) include personal or family history of alcohol or other drug abuse, and comorbid psychiatric disorders. Research strongly suggests smoking is also a predictor of more frequent and problematic use of opioids.

Patients with SUDs may not disclose drug use, either current or historical. Consider drug use screening when assessing acute pain in patients with a history of dependence. Look for signs of drug use, including intoxication, withdrawal and injection-site marks, and conduct a urine drug screen; this screen is not confirmatory and should always be used in conjunction with clinical signs and history.

YELLOW FLAGS	RED FLAGS
<ul style="list-style-type: none">• Few unsanctioned dose escalations• Occasionally acquiring from multiple doctors• Aggressive complaining about need for higher dose or specific drug• Drug hoarding during periods of reduced symptoms• Unapproved use of drug to treat other symptoms (eg, sleep, mood)• Reporting psychic effects not intended by clinician	<ul style="list-style-type: none">• Many unsanctioned dose escalations• Often acquiring from multiple doctors• Recurrent prescription loss• Obtaining prescription drugs from nonmedical sources• Concurrent substance abuse (alcohol, other drugs)• Injecting oral formulations• Selling prescription drugs• Prescription forgery

5.3.6.3 Precautions

With patient safety paramount, apply the principles of universal precautions to pain management for all patients, as it is impossible to identify all patients engaged in drug-seeking behaviour.

- Screen patients to identify those at risk of aberrant drug-related behaviours and problematic drug use.
- Prescribe opioids on a limited trial basis to establish efficacy, and review pain scores and level of function regularly.
- Routinely assess at each visit the five As of pain medicine:
 - has the pain reduced (**Analgesia**)?
 - has the level of function improved (**Activity**)?
 - are there significant **Adverse** effects?
 - is there evidence of **Aberrant** substance-related behaviours?
 - what is mood of the individual (**Affect**)?

If treatment goals are not met, consider tapering or discontinuing opioids while using other methods to manage pain.

Lost prescriptions or drugs, or claims they were stolen, should flag that either the patient is misusing or trafficking the drug, or that there is a risk to others from these potentially dangerous medicines. Consider limiting supply to every day or two, or tapering and discontinuing – outcomes that should be signalled in the patient agreement. Failure to comply with non-opioid treatment appointments or recommendations may signal that the patient is drug-seeking or focused inappropriately on opioids to the exclusion of other effective treatment modalities.

Adopting a cautious approach – one that includes regular monitoring and reassessment – may prevent problematic opioid use or identify it early, enabling appropriate referral into specialist care, including pain and drug and alcohol addiction specialist care with input from mental health specialists as needed.

5.3.6.4 Treatment considerations

Treating chronic pain in patients with SUD is complex. Chronic pain is a biopsychosocial phenomenon, and all aspects should be assessed and treated. Many patients, including those with high-risk drug behaviours, receive insufficient pain relief. The effective treatment of acute pain may reduce the risk of developing a chronic pain condition.

Adopt a multidisciplinary approach with a focus on appropriate combinations of physical, psychological and pharmacological therapies. Optimise non-drug and non-opioid drug treatments either to avoid opioid use or implement opioid-sparing treatments. Only consider prescribing an opioid over a 4-week trial period after confirming all of the following:

- a comprehensive assessment and patient history has been undertaken, providing a differential pain diagnosis with baseline pain score and functional ability, as well as a mental health history including drug and alcohol use
- a treatment plan has been agreed to and includes improved function and activity as a goal, not just pain relief
- a trial of non-opioid analgesia and non-drug treatments has occurred, including corroboration of treatment history confirming this for patients who report starting treatment elsewhere
- the patient has acute pain, cancer pain and palliative care, or in the case of non-cancer pain, a diagnosis consistent with nociceptive or neuropathic pain.

Start low and go slow

Limit the prescribed opioid to the lowest effective dose for the shortest effective duration (for both acute and chronic pain) without compromising effective analgesia. With acute pain, prescribe no more than needed for the expected duration of the pain – 3 days or less will often be sufficient; more than 7 days will rarely be needed.

Withdrawal management

In addition to maximising pain relief through non-opioid analgesics, preventing withdrawal syndromes is an important aim of management. Clonidine may be useful for this purpose. Note that for patients abusing other recreational drugs, there is no cross-tolerance between opioids and most other drugs of abuse (eg, alcohol, benzodiazepines, cannabis, cocaine, amphetamines).

For moderate pain that is unresponsive to non-opioid analgesia and other intervention, consider prescribing a trial of tramadol, as it has a lower potential for abuse compared with other opioids.

Tramadol may not provide sufficient pain relief for patients with severe pain or those who are opioid-tolerant.

Choose drugs and administration routes with lower reinforcing properties (eg, morphine over pethidine, oral rather than parenteral). Consider adjuvants such as clonidine, antidepressants and anticonvulsants.

Medically assisted therapy

Patients with an opioid use disorder who are not suitable for a controlled trial can be offered medically assisted therapy (MAT) with methadone or buprenorphine.

Risk management

Research recommends intensive monitoring and management of patients at high risk of opioid misuse. This may include:

- close supervision of opioid supply, including interval dispensing every day or more
- additional non-pharmaceutical strategies such as psychotherapy
- monitoring via appointments, random urine drug screens, and pill counts.

High abuse risks are indicated by:

- current alcohol and/or drug abuse
- significant, poorly controlled psychiatric comorbidity
- use, or detection by urine drug screen, of illicit drugs or other sedating medicines
- diversion to others, suggested by the absence of the prescribed drug in the urine drug screen.
- repeated problems adhering to an opioid management treatment plan, such as:
 - frequent early refill requests
 - escalating doses without consultation with a physician
 - obtaining opioids from multiple prescriber

Intense monitoring is recommended for patients

- taking > 120 mg morphine-equivalent dose per day
- taking methadone or buprenorphine for the treatment of opioid dependency
- Who have a history of either high dose opioids or treatment for opioid dependency.

5.3.6.5 Tailored patient management plans can include:

- patient education and treatment agreements based on informed consent
- compliance monitoring
- pill counts
- urine drug tests
- referral to addiction medicine specialists.

This approach has potential for prevention and early identification of problematic opioid use, and facilitates appropriate referral into specialist care, including pain and drug and alcohol addiction specialist care with input from mental health specialists as needed.

An initial referral to specialists is typically considered before prescribing for patients with:

- a history of or current alcohol or drug dependence
- previous opioid use that was problematic
- a comorbid psychiatric or psychological disorder
- indeterminate pathology (undifferentiated or non-specific pain)
- a relatively young age.

During the course of pain management, even when an optimal regimen and monitoring approach has been implemented, advice may be warranted for the following reasons:

- unexpected drug dose escalation
- ceiling drug dosages reached
- suspected abuse or misuse (eg, drug diversion)
- change in risk category
- high levels of patient distress or exacerbation of psychiatric or psychological disorder.

An initial referral to specialists is typically considered before prescribing for patients with:

- a history of or current alcohol or drug dependence
- previous opioid use that was problematic
- a comorbid psychiatric or psychological disorder
- indeterminate pathology (undifferentiated or non-specific pain)
- a relatively young age.

Be prepared to refer a patient for hospital admission if you consider them to be a risk to themselves or others or if your patient is at risk from others.

5.3.6.6 Communication strategies

Patients prescribed opioids respond best when conversations are framed as protecting them from potential opioid-related harms.

Use a benefit-to-harm framework to make and communicate decisions about starting, continuing and discontinuing opioids for managing chronic pain. This focuses decisions and discussions on judging the treatment rather than the patient, and promotes a therapeutic alliance and shared decision making

5.3.6.7 Prescribing tips to deter abuse

Reduce risk by restricting access and decreasing temptation to overuse by:

- enabling only small quantities of opioids to be dispensed – prescribe only enough medicine to carry through to the next appointment
- writing out the number of tablets to be dispensed in letters and numerals (ie, 14 and fourteen) to prevent forged alteration of the prescription to obtain larger amounts.
- drawing a large ‘Z’ at the bottom of the prescription to avoid other items being added to paper prescriptions.
- arranging more frequent follow-up

Discourage doctor shopping by informing patients that opioids should be obtained from one practice and preferably only one prescriber, including being dispensed through one pharmacy. Review your prescribing habits in relation to opioids and other drugs of dependence.

Presenting risk management as a strategy for protecting the patient from medication harms enables treatment agreements to become an important communication tool rather than just a practice policy, and helps the patient distinguish between acceptable and unacceptable drug-taking behaviours. It also provides a means for justifying the decision, if necessary, to terminate opioid treatment.

APPENDICES


ASSIST


INTRODUCTION:

I am going to ask you some questions about your experience with alcohol, tobacco products and other drugs across your lifetime and in the past 3 months. These substances can be smoked, swallowed, snorted, inhaled, injected or taken in pill form. **(Show Response Card).**

Some of the substances listed may be prescribed by a doctor (like sedatives, pain medications, amphetamines etc.). For this interview, we will not record medications that are used as prescribed by your doctor. However, if you have taken such drugs for reasons other than prescription, or taken them more frequently or at higher doses than prescribed, please let me know. While we are also interested in knowing about your use of various illicit drugs, please be assured that the information on such use will be treated as strictly confidential.

1	In your life, which of the following substances have you ever used? (non-medical use only)		
		No	Yes
	a. Tobacco products	0	3
	b. Alcoholic beverages	0	3
	c. Marijuana	0	3
	d. Cocaine or Crack	0	3
	e. Amphetamines or Stimulants	0	3
	f. Inhalants	0	3
	g. Sedatives or Sleeping Pills	0	3
	h. Hallucinogens	0	3
	i. Heroin, Morphine, Pain Medication	0	3
	j. Other, specify:	0	3

Probe if all answers are negative: "Not even when you were in school?" If "No" to all items, stop the interview. 

If "Yes" to any of these items, ask Question 2 for each substance ever used. 

2	In the past three months, how often have you used the substances mentioned (first drug, second drug, etc.)					
		Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
	a. Tobacco products	0	2	3	4	6
	b. Alcoholic beverages	0	2	3	4	6
	c. Marijuana	0	2	3	4	6
	d. Cocaine or Crack	0	2	3	4	6
	e. Amphetamines or Stimulants	0	2	3	4	6
	f. Inhalants	0	2	3	4	6
	g. Sedatives or Sleeping Pills	0	2	3	4	6
	h. Hallucinogens	0	2	3	4	6
	i. Heroin, Morphine, Pain Medication	0	2	3	4	6
	j. Other, specify:	0	2	3	4	6

If Never to all items in Question 2, skip to Question 6. If any substance in Question 2 was used in the previous 3 months continue with Questions 3, 4 & 5 for each substance used.

3	During the past three months, how often have you had a strong desire or urge to use (first drug, second drug, etc.)?					
		Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
	a. Tobacco products	0	3	4	5	6
	b. Alcoholic beverages	0	3	4	5	6
	c. Marijuana	0	3	4	5	6
	d. Cocaine or Crack	0	3	4	5	6
	e. Amphetamines or Stimulants	0	3	4	5	6
	f. Inhalants	0	3	4	5	6
	g. Sedatives or Sleeping Pills	0	3	4	5	6
	h. Hallucinogens	0	3	4	5	6
	i. Heroin, Morphine, Pain Medication	0	3	4	5	6
	j. Other, specify:	0	3	4	5	6

4	During the past three months, how often has your use of (first drug, second drug, etc.) led to health, social, legal or financial problems?					
		Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
	a. Tobacco products	0	4	5	6	7
	b. Alcoholic beverages	0	4	5	6	7
	c. Marijuana	0	4	5	6	7
	d. Cocaine or Crack	0	4	5	6	7
	e. Amphetamines or Stimulants	0	4	5	6	7
	f. Inhalants	0	4	5	6	7
	g. Sedatives or Sleeping Pills	0	4	5	6	7
	h. Hallucinogens	0	4	5	6	7
	i. Heroin, Morphine, Pain Medication	0	4	5	6	7
	j. Other, specify:	0	4	5	6	7

CLINICAL OPIATE WITHDRAWAL SCALE (COWS) TOOL				
Date:	___/___/___ Time:	___/___/___ Time:	___/___/___ Time:	___/___/___ Time:
Time:				
Resting Pulse Rate: (record beats per minute) <i>Measured after patient is sitting or lying for one minute</i> 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120				
Sweating: <i>over past ½ hour not accounted for by room temp or patient activity</i> 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face				
Restlessness <i>Observation during assessment</i> 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 Unable to sit still for more than a few seconds				
Pupil size 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible				
Bone or Joint aches <i>If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored</i> 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/ muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort				
Runny nose or tearing <i>Not accounted for by cold symptoms or allergies</i> 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks				
GI Upset: <i>over last ½ hour</i> 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 Multiple episodes of diarrhea or vomiting				
Tremor <i>observation of outstretched hands</i> 0 No tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching				
Yawning <i>Observation during assessment</i> 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute				
Anxiety or Irritability 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable anxious 4 patient so irritable or anxious that participation in the assessment is difficult				
Gooseflesh skin 0 skin is smooth 3 pilo-erection of skin can be felt or hairs standing up on arms 5 prominent pilo-erection				
Total score				
Scale: 1. 5-12 = mild; 2. 13-24 = moderate; 3. 25-36 = moderately severe; 4. more than 36 = severe withdrawal	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/>	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/>	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/>	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/>
Name/Initials Service Provider				

BRIEF MENTAL STATUS EXAMINATION Date:

Mental Parameter	Examination findings		Other: Describe
Appearance	<input type="checkbox"/> normal grooming, well kempt <input type="checkbox"/> unkempt, dirty		
Attitude & behavior	<input type="checkbox"/> Calm & Cooperative <input type="checkbox"/> restless <input type="checkbox"/> uncooperative <input type="checkbox"/> no unusual movements <input type="checkbox"/> mannerisms <input type="checkbox"/> violent		
Speech:	<input type="checkbox"/> coherent <input type="checkbox"/> incoherent <input type="checkbox"/> normal tone, rate, content, volume <input type="checkbox"/> pressured <input type="checkbox"/> poverty of speech		
Affect	<input type="checkbox"/> appropriate/mood congruent <input type="checkbox"/> tearful, sad <input type="checkbox"/> elated <input type="checkbox"/> labile <input type="checkbox"/> flat/blunted		
Mood	<input type="checkbox"/> euthymic <input type="checkbox"/> irritable <input type="checkbox"/> depressed <input type="checkbox"/> elevated		
Thought Process	<input type="checkbox"/> logical <input type="checkbox"/> illogical <input type="checkbox"/> pressured <input type="checkbox"/> disorganized		
Thought Content	<input type="checkbox"/> normal <input type="checkbox"/> delusions <input type="checkbox"/> suicidal <input type="checkbox"/> phobias <input type="checkbox"/> obsessions		
Perception: Hallucinations Illusions	Absent <input type="checkbox"/> <input type="checkbox"/>	Present <input type="checkbox"/> <input type="checkbox"/>	
Orientation Time Place Person	Oriented <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Disoriented <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Memory Immediate recall Recent Remote	Intact <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Impaired <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Concentration and Attention	<input type="checkbox"/> Good <input type="checkbox"/> Poor		
Judgment	<input type="checkbox"/> Good <input type="checkbox"/> fair <input type="checkbox"/> poor		
Insight	<input type="checkbox"/> Present <input type="checkbox"/> Absent		

CAGE QUESTIONARRE

CAGE is derived from the four questions of the tool: Cut down, Annoyed, Guilty, and Eye-opener

CAGE Questions

1. Have you ever felt you should **C**ut down on your drinking?
2. Have people **A**nnoyed you by criticizing your drinking?
3. Have you ever felt bad or **G**uilty about your drinking?
4. Have you ever had a drink first thing in the morning as an **E**ye-opener to steady your nerves or to get rid of a hangover?

CAGE Questions Adapted to Include Drug Use (CAGE-AID)

1. Have you ever felt you ought to cut down on your drinking or drug use?
2. Have people annoyed you by criticizing your drinking or drug use?
3. Have you felt bad or guilty about your drinking or drug use?
4. Have you ever had a drink or used drugs first thing in the morning as an eye-opener to steady your nerves or to get rid of a hangover?

Scoring: Item responses on the CAGE questions are scored 0 for "no" and 1 for "yes" answers. A total score of two or greater is considered clinically significant.

CAGE Source: Ewing 1984

AUDIT

Client _____

Date _____

Score _____

-
1. How often do you have a drink containing alcohol (Score)
 - 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 (0)
 - 3 or 4 (1)
 - 5 or 6 (2)
 - 7 to 9 (3)
 - 10 or more (4)
 3. How often do you have six or more drinks on one occasion?
 - Never (0)
 - Less than monthly (1)
 - Monthly (2)
 - Weekly (3)
 - Daily or almost daily (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)
 - Less than monthly (1)
 - Monthly (2)
 - Weekly (3)
 - Daily or almost daily (4)
 5. How often during the last year have you failed to do what was normally expected from you because of drinking?
 - Never (0)
 - Less than monthly (1)
 - Monthly (2)
 - Weekly (3)
 - Daily or almost daily (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)
 - Less than monthly (1)
 - Monthly (2)
 - Weekly (3)
 - Daily or almost daily (4)
 7. How often during the last year have you had a feeling of guilt or remorse after drinking?
 - Never (0)
 - Less than monthly (1)
 - Monthly (2)
 - Weekly (3)
 - Daily or almost daily (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)
 - Less than monthly (1)
 - Monthly (2)
 - Weekly (3)
 - Daily or almost daily (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)

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