SUBSTANCE USE DISORDERS: A PHYSICIAN'S GUIDE

An overview of substance use disorders and their management

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Introduction

The term substance use disorder encompasses a range of problems caused by the misuse of mind altering substances, from harmful use to addiction,. It is important for the physician to be able to effectively identify, diagnose and manage these problems.

In clinical practice, patients with substance use disorders may present in a few of these common ways. The patient may present with a medical condition like hypertension or diabetes (common non-communicable disorders), aggravated by the use of substances. The patient may have a serious physical or mental health condition and be coping with it through the use of substances. The patient may present with non-specific symptoms like sleep or mood disturbances, which may be manifestations of substance withdrawal. In emergency room settings, patients may present with either substance-related intoxication or withdrawal. In recent times, there has been an encouraging trend of patients approaching physicians for help to deal with a primary substance use disorder.

What are 'substances'?

This includes a group of chemicals with mind-altering properties that people use for pleasurable effect, relaxation, or relief of distress. Substances are primarily classified based on their pharmacological properties.

What is the extent of the problem?

The National Mental Health Survey 2016 reports that 22.4% of the population above 18 years use one or other substances. The Global Adult Tobacco Use Survey of 2010 shows that 47% of adult males and 20% of adult females uses tobacco. Surveys like the National Family Household Survey (NFHS-4) conducted in 2015 – 16 have assessed the use of alcohol and tobacco report that 29.3% of men and 1.2% of women consume alcohol, while 44.8 % of men and 6.8% of women use some form of tobacco. There is growing evidence that across successive generations, the age of onset of substance use is reducing and it is well known that such increased use also predicts increased problems in the community.

Why must physicians deal with SUDs?

1. Substance use disorders constitute an important public health problem. They are associated with increased mortality through premature death. They contribute in large part to morbidity directly (through accidents, overdose, violence) as well as indirectly (as preventable risk factors for communicable diseases like HIV and tuberculosis and non-communicable diseases like cancer, cardiovascular disease, diabetes, respiratory disease and mental disorders).
2. Apart from their impact on physical and mental health, they also affect the emotional well-being of the family. Work and finances are important areas where substance use can cause impairments.

Table-1: Common Categories of substances

Broad category	Types	Current Status
Tobacco	*Smoked* – Bidi, cigarette, hookah *Chewed* – Hans, khaini, kaddipudi, mawa *Inhaled* – Snuff	Legally sold with the exception of pan masala containing tobacco, which is banned in most states of India
Alcohol	Taken orally Spirits (Indian made foreign liquor or IMFL), Country liquor, beer, wine	Legally sold, with the exception of locally brewed or country liquor
Cannabinoids	Smoked Ganja, charas, hashish Taken orally Bhang	Illicit
Opioids	Smoked, chased or Injected Heroin, brown sugar, opium Taken orally or Injected Pentazocine, morphine, pethidine, dextropropoxyphene, codeine, tramadol	Illicit Many of the currently misused opioids are prescription drugs. Dextropropoxyphene has been banned because of increased misuse and seizures

Broad category	Types	Current Status
Benzodiazepines	*Taken orally/injected* *Alprazolam, Diazepam, Clonazepam, Nitrazepam, Lorazepam*	*Legal* *Misused benzodiazepines are prescription drugs*
Inhalants	*Inhaled or Huffed* Paint, Glue, Petrol, whitener	Available for industrial or other purposes. Use of bottled whitener banned because of misuse potential
Stimulants	*Taken orally/Snorted through nose/Injected* Cocaine, Amphetamine and its derivatives	Illicit
Hallucinogens	*Taken orally* LSD, Psilocybin (Magic Mushrooms)	Illicit

3. Substance use disorders are often not recognised early by clinicians. Even now, it is often 10-12 years between the onset of problems due to substance use disorders and seeking help for substance dependence.
4. There is a huge treatment gap for substance use disorders. Between 76-85% of persons with substance use disorders have not received care and treatment.
5. So far, the focus has been to treat only dependence (or addiction), which forms only a small part of the problems from the use of substances. For every person who is dependent, there are at least four or more persons likely to have a problem from their use of substances in a harmful manner. Physicians do not generally focus on the non-dependent use problems among their patients.
6. The World Health Organization recommends that physicians in primary care manage a range of problems related to the use of substances from harmful use to dependence.

Why are persons with substance use disorders not being helped?

Some of the reasons attributed as to why physicians do not engage in the treatment of substance use disorders include a LACK of:

- Time
- Training in recognising substance use disorder and offering timely and appropriate intervention
- Confidence on whether it is appropriate to ask about personal habits
- Conviction of whether it is the duty of the physician to intervene for what appear to be life-style choices.

How can the physician help patients with substance use disorders?

A large proportion of persons who seek care in primary health care or clinical settings are likely to be using one or other substance. Given that lifestyle behaviours such as the use of alcohol, tobacco and other drugs, physical inactivity, unhealthy diet, stress and risky behaviours are important preventive risk factors for diseases, particularly NCDs, the physician is then responsible to address and reduce such risk factors in order to improve health and reduce morbidity among his/her clientele.

Fig. 1: The Role of the Physician

- Routinely ask about the history of substance use and other lifestyle behaviors
- Assess and convey the relationship of current substance use to the patient's physical and mental state
- Provide brief interventions to stop or modify the use of substances
- Offer further assistance to persons with more severe substance use problems

According to the NMHS, the treatment gap for alcohol use disorders is 86%. The large treatment gap could be avoided if the physician could:

- Routinely ask persons seeking clinical care about their use of substances
- Assess the problems with substance use and link substance use to the patient's physical and mental state. A clinical consultation offers a 'teachable moment' where the physician can help the patient recognise the problems related to substance use and the importance of addressing such problem use

- Provide brief interventions to help the patient overcome the problem use of substances
- Offer further help to the patient in order to address the substance use problems as SUD's are chronic relapsing disorders which occur due to the complex interplay of biological, psychological and social factors.
- Guide patients to other resources available for the treatment of substance dependence through posters, pamphlets put up in the clinic to encourage help-seeking.

General Principles

Substance use is associated with a great deal of stigma both among the users as well as among physicians and other health professionals. This often leads to reluctance on the part of physicians and other health professionals to even enquire about substance use.

It is thus important to make sure you ask ALL your patients including BOTH MEN AND WOMEN about substance use as this can seriously compromise their physical and mental health..

It is well known that the use of substances can cause harm to others. Thus, even when dealing withCHILDREN, it is important to ask about substance use among family members. Since exposure to substances can occur in utero, it is essential to ask pregnant women about their use of substances as well as about substance use in their partners and other family members.

Fig. 2: Sample questions

Have you ever had a drink with alcohol anytime?

Have you ever smoked cigarettes and bidis or chewed tobacco?

Have you ever smoked ganja?

Have you ever taken any tablets, injections or syrups to feel good or improve your mood when you are sad?

Have you taken any medicines without a doctor's prescription to feel good or deal with stress?

Have you ever sniffed paint, petrol or nail polish remover to feel good?

For a patient currently using any substance – Consider further assessment for pattern of use, including presence of harmful use or dependence.

For a patient who has used substances in the past but is not currently using, ask –

- *How long is it since you stopped using the substance?*
- *What made you stop?*
- Reinforce him/her fully – *"That is really great", "I am sure it would have been difficult"*
- Offer help in case of any problems in the future

Defining Harmful Use And Dependence

The International Classification of Diseases (ICD – 10) defines two problematic patterns of substance use, namely harmful use and dependence.

Harmful use means a pattern of psychoactive substance use that is causing damage to health. The damage may be physical (as in cases of hepatitis from the self-administration of injected drugs) or mental (e.g. episodes of depressive disorder secondary to heavy consumption of alcohol)

Dependence is 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. A central descriptive characteristic of the dependence syndrome is the desire (often strong, sometimes overpowering) to take psychoactive drugs, alcohol, or tobacco.

Fig. 3: Defining dependence

WHAT IS DEPENDENCE ?

3 or more of the following criteria present together in the past 1 year:

Craving – A strong desire or sense of compulsion to take the substance

Loss of control – Difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use

Withdrawal – A physiological withdrawal state when substance use has ceased or been reduced

Tolerance – Increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses

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

Use despite harm - Persisting with substance use despite clear evidence of overtly harmful consequences

History:

1. Patient demographic details
2. Drug use history – Should be recorded individually for each substance. If using more than one substance, starting with the earliest substance and then moving on to the other substances is helpful to get a clear history.
    - Age and circumstance of initiation– How did it start?, What were the first few experiences?
    - Progression from occasional to regular use- At what age did the substance use become regular?
    - Maintaining factors for substance use – What led to continuing to take substances?
    - Effects of intoxicated behaviour
    - Changes experienced in effect of substance over time (Tolerance)
    - Details of withdrawal symptoms (When first experienced? Severity and complicated withdrawals)
    - Presence of craving
    - Current (Past 1 month) pattern of consumption – Average use, Last use
    - Routes of drug use: If injecting drug use is present, sites, mode (IM or IV) and risks (re-using needles/syringes, sharing)
3. High risk behaviours (driving under influence, high risk sexual behaviour)
4. Other behavioural addictions (gambling, racing, excessive use of the internet)
5. Periods of abstinence from the substance and
    - Number of abstinence attempts and reasons for the same
    - Any treatment sought and its nature and duration
    - Functioning during abstinence period
    - Any other substance use during abstinence from one substance
    - Reasons for relapse to substance use after abstinence
6. Complications associated with drug use
    - Physical
    - Psychological

- Financial
- Occupational
- Family-related
- Social
- Legal

7. Reasons for seeking treatment
8. Past medical or psychiatric history, if any
9. Family history
10. Personal history
11. Pre-morbid Temperament

Fig. 4: Assessment of temperament

<table>
<tr><td colspan="2">Temperament is an important risk factor for substance use. Different types of temperament may often exist in the same individual</td></tr>
<tr><td>Externalizing disorders are risk factors for substance use disorders Externalizing disorders include Attention Deficit Hyperactivity Disorder (ADHD). Oppositional Defiant Disorder (ODD), Conduct Disorder (CD), Antisocial Personality Disorder and Alcohol and Drug Dependence.

Some features that are distinct in these conditions include:
● A desire for novelty or new experiences
● Easily getting bored
● Not being able to learn from mistakes
● Poor decision making and making risky choices
● Not being able to empathise with others
● Exaggerated response to stress</td><td>Internalizing disorders are also risk factors for substance use disorders. Such disorders include anxiety and depressive disorders, which arise out of an inhibited temperament and interpersonal skills deficits. This often leads to use of substances to cope with these problems as a sort of self medication.</td></tr>
<tr><td colspan="2">Successful treatment requires identifying and handling difficult temperaments that increase the risk to substance use</td></tr>
</table>

Physical and mental state examination

The clinical history must be followed by a thorough physical and mental state examination.

Fig. 5: Physical and Mental Status Examination

Physical Examination	Mental State Examination
In addition to a general physical examination, additional pointers for substance use include: • General appearance (smell of alcohol, tobacco stains, injection marks) • Evidence of withdrawal symptoms (eg: tachycardia, hypertension, tremors, dilated pupils) • Evidence of physical complications related to substance use (eg: signs of liver cell failure, external injuries) (multiple system involvement, particularly cardiological, neurological and renal with inhalant use) • Evidence of psychological problems (e.g. slash marks of self-harm)	General appearance and behavior, psychomotor activity, speech, thought, perception and higher mental functions **Presence of any underlying psychiatric disorder** **Motivation to Quit substances** • Past attempts to quit substances • Acceptance of problems associated with drug use • A strong desire to quit • Taking responsibility rather than blaming external factors • Seeking treatment of one's own will Complying with treatment and follow up

Investigations

These are necessary to:

- Rule out medical illnesses
- Assess drug related harm
- Provide a personalized feedback to the patient about risks from substance use.

Specific investigations useful in substance use disorders

- Blood investigations – Liver function tests, Renal function tests, Complete Hemogram, Fasting sugars and Fasting lipids

- HIV, HbSAg, HCV, VDRL – In patients with a history of high risk behaviours
- Chest X Ray, ECG
- CT – Brain (If head injury is suspected or seizures need evaluation)
- Markers of substance use –
  - Mean Corpuscular Volume, Gamma Glutamyl Transferase, Carbohydrate Deficient Transferrin, Ethyl Glucuronide (For alcohol)
  - Breath CO monitoring, urinary cotinine (For nicotine)
  - Commercially available urine ELISA kits for various other substances of abuse

Clinical Scales

There are many clinical scales that can be very useful in assessing severity of use, dependence and withdrawal. These can be effective tools in both assessment as well as guide management.

Table-2: Commonly used scales for screening/dependence/withdrawal

Substance	Screening/ Dependence	Withdrawal
Alcohol	CAGE AUDIT (Alcohol Use Disorder Identification Test)	CIWA (Clinical Institute Withdrawal Assessment for Alcohol)
Tobacco	Fagerstrom's Questionnaire	
Opioids	Opioid Risk Scale	COWS (Clinical Opiate Withdrawal Scale)
Multiple substances	ASSIST (Alcohol, Smoking and Substance Involvement screening Test) DAST (Drug Abuse Screening Test) ICD 10/DSM V criteria for harmful use/ dependence	

Case Discussion

Mr S is a 34 year old married man, educated upto 10th standard, working in a courier company, living in Bangalore. He initiated alcohol use at the age of 18 years with friends. He started drinking beer on weekends. At the age of 19 years, following the break - up of a love affair, he was upset and started to drink whisky 2-3 pegs (1 peg=30 ml or 1 unit) daily to deal with the pain.

When he first got a job as a salesman, at the age of 20, he started drinking upto one quarter (1 quarter = 180 ml or 6 units) of whisky every evening. He got married at 22 years, and stopped drinking for a year, but restarted in the company of friends. Since the age of 24, he has been drinking 1-3 quarters per day, and this goes to 4-5 quarters per day. When he comes home intoxicated, he beats his wife. He works in the courier company for the last two years. Last year, he had a bike accident when he was driving home after drinking, in which he had a fracture of his wrist. He was absent from work for 2 months.

For the last 10 years, when he does not take a drink, his hands start to shake and he cannot sleep. He wanted to stop, but these problems and the urge to drink made him go back to using alcohol. He first had fits at the age of 33, when he ran out of money and could not have a drink. Three days back, he had fever, following which he stopped drinking. Since the next day, he has been feeling fearful, saying that his house will catch fire, that the police are after him. He was brought to the emergency as he was very agitated and violent.

He is also a smoker. He began smoking cigarettes at the age of 18 years. He has been a daily smoker since the age of 20 years. In the last 10 years, he smokes 2 packets of cigarettes per day. When he is short of money he smokes bidis instead. Two years back, he was diagnosed with tuberculosis. Since then he has stopped smoking, but instead uses 5-6 packets of pan masala which he now mixes with tobacco and uses. His last use of tobacco was yesterday.

Mr S has used sleeping pills on and off since the age of 30 years. His friend who works in a pharmacy suggested he use this for sleep. He takes about 1-2 pills about 2-3 times per month.

He has had jaundice at the age of 30 years. Since 2 years, he has been having mild fever in the evening, and cough. He has lost about 7-10 kgs of weight in the last 4 years.

Mr S's father died at the age of 45 years due to complications because of regular alcohol use. His grandfather and two uncles on the mother's side also

drink alcohol regularly. He has no family history of epilepsy

In childhood, S is described as being very impulsive and very prone to anger.

Questions

1. What substances is S dependent on?
2. What are the characteristics of dependence S has shown?
3. What are the complications S has developed?
4. What risk factors does S have?
5. What was the reason for S seeking help?

The answers are provided at the end of this guide.

Psychosocial Management In Clinical Practice

The effective management of SUDs requires a comprehensive approach which includes the use of biomedical, psychological and socio-cultural treatment modalities.

While the bio-medical approaches are discussed later under each specific substance, this section provides the general principles and techniques of psychosocial interventions. Brief interventions can be effectively carried out by physicians. Comprehensive psychosocial interventions are best carried out by a multi-disciplinary team which could involve counsellors, nurses, social workers and psychologists.

Table-3: Common psychosocial interventions in treatment of SUD

Intervention	Approach used	Profile of clients
Brief Intervention *	FRAMES	Harmful use
Motivation Enhancement Therapy *	Motivational Interviewing	All types of substance use
Relapse prevention *	Cognitive Behavioural Therapy	All types of substance use
Network therapy	Social Networks / Social support / Peer support	Treatment non seekers
Community Reinforcement	Behavioural Interventions	Adolescent solvent, cannabis users
Multi systemic therapy	Social cognitive	Adolescent users

Intervention	Approach used	Profile of clients
Matrix Model	Eclectic, combining cognitive behavioural, social learning and social networking	Alcohol, Opiate, and stimulant users
Self help approach	Social Networks / Social support / Peer support	Alcohol, Opiate users, Gambling

(Adapted from Psychosocial Interventions for Persons with substance use: Theory and practice)

Described in detail in the section below

The most practical psycho-social interventions that are discussed in more detail and that physicians and other health professionals can use include:

Brief Interventions:

These can range from 5 minutes of brief advice to 15-30 minutes of brief counselling.

Fig. 6 : The 5-As

Ask all patients about the use of substances (Ever and Present)

Assess the severity of problems and their readiness to quit

Advise about the importance of quitting

Assist them in their quitting attempt through brief counselling and medication if needed

Arrange for a referral to a specialised centre if there are complications or if quit attempts fail despite help

The 5-A's model is a useful brief intervention that is possible in all clinical settings.

FRAMES

FRAMES is a typical example of a brief intervention for alcohol use but can also be applied to other drug use.

- ***Feedback of personal risk***

  After clinical assessment and investigations, clearly inform the patient about his pattern of substance use and existing or potential harmful effects. For eg:

  "Your drinking is going to worsen your stomach pain"

  "I am concerned that your use of tramadol is causing the fits"

- ***Responsibility***

  Inform your patient that decision about making a change in substance use is their responsibility and choice solely. For eg:

  "Now it is up to you to take a decision on drinking"

- ***Advice***

  As a doctor, give clear advice to reduce drinking and other drug use.

  Ask your patient to make a balance sheet (Box 7). Ask about the advantages and disadvantages of using the substance. Make the patient see that the disadvantages of using are much more than the advantages of using and the advantages of stopping are greater than the disadvantages of stopping

Fig. 7. Balance sheet

	Advantages	Disadvantages
If I continue drinking / using the drug	*I can forget worries* *I can escape responsibilities*	I am having more family fights I am having health problems I am spending much more Everyone is looking down upon me My work is suffering I had an accident because of this My health is going to get worse if I continue
If I reduce drinking / using the drug	My health will improve I will save money I will not injure or harm myself	*I will find it difficult to pass time* *I will miss the pleasure of using* *I will lose friends*

Fig. 7. Balance sheet		
	Advantages	**Disadvantages**
If I stop drinking/ using the drug	I can be like others I can get more respect My health will improve I will make more friends I will save money My family will be happy I will be able to work better	*I may lose my friends* *I am afraid of withdrawal symptoms*

- **Menu of alternate choices**
  - Recognising and avoiding trigger situations (hunger, anger, tiredness, loneliness, peer pressure to use, seeing substances/users, being in situations previously associated with use)
  - Planning ahead to limit drinking or use of substance
  - Learning to cope with everyday problems that encourage drinking or use of substance
  - Finding alternate sources of enjoyment
  - Dealing with stress, anxiety and mood symptoms
- **Express empathy**

  Do not belittle or criticize. Do not refer to the person as an addict/alcoholic directly or to family members/while discussing with others. Acknowledge that substance dependence is a problem that can be difficult to overcome, but can be with some effort and help.
- **Self-efficacy**

  Encourage patient to be optimistic and to bring about the changes in drinking/substance use behaviour

Techniques to improve motivation

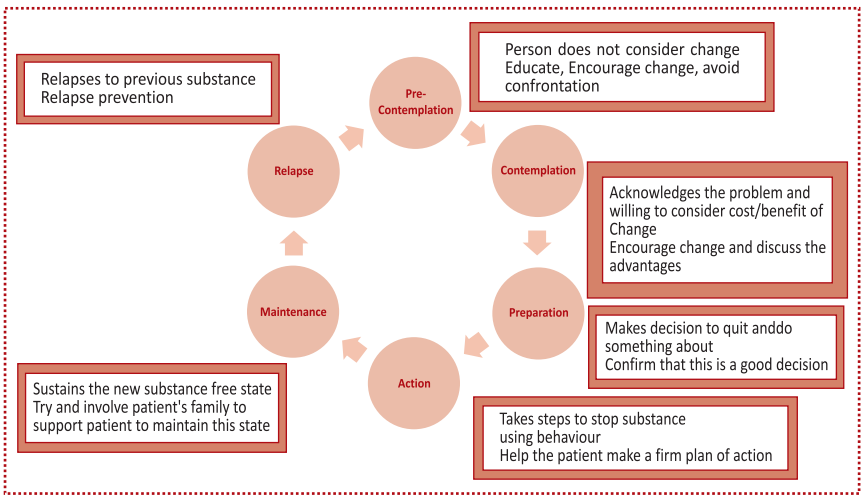
Different patients may be in different stages of readiness to change.

Motivation enhancement therapy (MET)

It is an approach to help the patient towards considering change from him or herself, rather than just solely because of the pressure from others.

MET utilizes as its background the *Stages of Change Model* of Prochaska and DiClemente. The stages of change and the professional's interventions at each stage are summarized in Figure-1. The physician's response during each stage is mentioned in italics.

Fig. 8: Stages of Readiness to Change substance use behaviour



Helpful approaches to the person with substance use disorders

Many persons with substance use disorders are hesitant to talk about their substance use because of fear, shame or disapproval. The motivational style of interviewing is a helpful approach in that it can help the patient discuss the substance use and related issues more readily and bring about a decision to change.

Motivational Interviewing

This is a style of counselling that helps the patient or client make a decision to change behaviour (in this context the use of substances).

Techniques include:

- **Open ended questions**
- **Affirmation** - Statements that recognize the patient's strength and acknowledges behaviors that lead to positive change.

  "You handled yourself really well in that situation."
- **Reflective Listening**–Listening to thoughts, feelings and meanings andreflects them back

  "You seem to have been really angry with your father not trusting you."
- **Summarising** - Special application of reflective listening. Helps to ensure that communication is clear between client and therapist

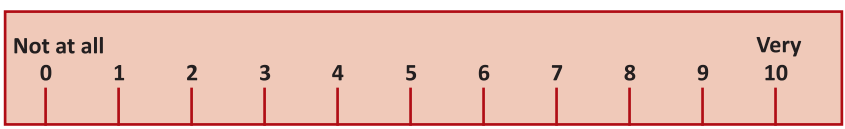
  "You are aware of the harm caused by using substances but the fear of withdrawals has made you use the substance again"
- **Eliciting change talk**

  " You have a good understanding of why you should quit and your coming here is a good sign."

Assessing readiness to change

A simple way to assess readiness to change is to ask the following questions:

Readiness Ruler



1. On a scale of 0 to 10, how important do you feel it is for you to change your drinking/drug use?
2. On a scale of 0 to 10, how confident do you feel that you can change your drinking/drug use?

3. Ask about extremes: "What is the worst thing that would happen if you did change this behavior?" "What is the best thing that could happen if you did change?
4. Looking forward- looking backward: Ask about life 1-2 years from now; life as it was before drug use started.

Counselling adolescents and young adults

A friendly approach and creating an atmosphere of trust is more likely to build a rapport with younger persons. Some helpful strategies include:

- Avoid giving advice at this stage
- Try finding common ground and reframing the problem – Both to the patient and to his family.
- Common concerns may include – Poor academic performance, Difficulty in focusing, Getting distracted easily, Unable to finish things on time, Difficulties in relationships with family or friends, anxiety in facing social situations.
- These are often more agreeable for the patient to discuss about than substance use.
- Most often the patient's problems are due to underlying temperament. This should be assessed and treated by the clinician to make interventions more effective.

Relapse Prevention

It is a set of strategies that aim to identify causes for relapse and manage them.

The basic strategies involved include:

Identifying and handling high risk situations – Common high risk situations include loneliness, free time, pressure from friends to use substances, positive or negative emotional states, social gatherings, job stress or fatigue .

Fig. 9: Prevention Strategies

- Managing high risk situations
- Managing craving
- Learning drink/drug refusal skills
- Dealing with faulty cognitions
- Managing negative moods
- Addressing self-harm
- Anger management
- Managing temperamental issues
- Having a balanced lifestyle

Handling craving – Craving is often described as a wave and the term 'urge surfing' has often been used to the methods of handling craving. Some basic strategies that can be advised for all substances include the 4D's – Delay, Distract, Drink water, Deep breathing.

Common triggers of craving are hunger, anger, loneliness and tiredness (HALT) and ways of dealing with these triggers may be discussed.

Drink refusal skills and assertiveness – Relapse is often in the context of peer pressure. The client should be aware of pressure tactics from peers and how to handle these situations. It is always better to say "NO" clearly rather than saying "maybe later" or "we shall see". *Eg: "No thanks, I have stopped drinking."*

Role play is a good method to help patients learn drink and drug refusal skills.

Dealing with faulty cognitions – This can include cognitions relating to overconfidence or helplessness. It is important to help the patient recognise these thoughts and how they may lead to relapse. A good way to record these thoughts is by maintaining a diary of thoughts.

Eg:"I can stay away from alcohol. Nothing can tempt me." The consequence is - going to parties where alcohol may be available, telling myself *"I will go, but I'll not drink."*

"After all these months of abstinence, I used the drug again, so there's no use. I cannot recover again"

"I am a useless person because of my alcohol addiction"

Handling negative mood states– Since negative mood states are frequently associated with relapse, it is important to handle them appropriately. Some strategies to manage the same are listed below:

- Being aware of self-defeating thoughts and realizing the adverse consequences of these negative thoughts.
- Accepting yourself just like you are, with strengths as well as limitations.

Identification and management of Mental disorders such as depression and anxiety and other such disorders would help in reducing problems from substance use disorders .

Managing self-harm – Self harm most often represents a solution for the client in the absence of other options. In any case, referral to specialist mental health services is mandatory.

Managing anger

Anger is one of the important triggers for relapse. Simple anger management strategies include understanding situations that lead to anger, avoiding them, breathing slowly, relaxing tensed muscles, counting backwards, leaving the tense situation, listening to music.

Addressing temperamental issues

Ways of handling impulsivity, risk taking behaviour, feeling good by engaging in safer activities (sports, music, spirituality etc), alternative ways of handling anxiety and stress are important measures to reduce the risk of relapse.

Having a balanced lifestyle – This includes having healthy supporting relationships, eating a balanced diet, regular exercise and sleep, pursuing hobbies and interests, managing time and money.

Engaging family support

Family members often accompany patients for their medical visits. History can be collected from family members to get a perspective about substance use, although they may not be able to provide details of quantity and frequency of use. Many of the family's negative responses are due to their lack of understanding about substance use disorders. Educating the families, listening to them and counselling them to change their negative responses and support to the patient in recovering from addiction are important tasks that health providers can effectively carry out.

Self- Help groups

Self- help groups, where persons recovering from substance dependence offer mutual support to recover, exist in many cities. It is useful for the clinical facility to put up a list and inform patients where facilities like the Alcoholics Anonymous, Narcotics Anonymous etc are available. Such support groups are also available for families.

Follow-up

Follow-up is a critical part in substance use disorders. In persons who are using substances in a harmful manner, or have an underlying health condition, regular follow-up to monitor both the health condition and the use of substances ensures better outcome. Retaining the patient in treatment has been shown to improve longer-term outcome.

Substance dependence is a potentially chronic, relapsing condition much like diabetes or heart disease. For patients who drop out of treatment, having a reminder in the form of text messaging or phone calls are simple but effective strategies to get persons back into treatment and improve their commitment to change.

Patients must be warned about the risk of relapse and in such cases, must be encouraged to seek treatment at the earliest. It is important not to blame the patient for the relapse, but to turn it into a learning experience from which the patient learns to avoid future relapses.

Medical Management of Substance use Disorders

Prompt medical management has a critical role in preventing mortality and morbidity in persons who use substances. The important steps in medical management would include the following:

Medical investigations: As indicated depending on the substance abused and the recognised complications. Investigations for each condition are mentioned in the respective sections.

Table-4: Common substances of abuse and their duration of detection in urine samples

Substance	Urine
Alcohol Positive test for ethanol Ethyl Glucuronide	 10-12 hours 3 -5 days
Cannabis (Casual Use) Cannabis (Chronic Use)	1-3 days Upto 30 days

Substance	Urine
Benzodiazepines (Theraputic use) Benzodiazepines (Chronic use)	3 days 4-6 weeks
Opioids Morphine Codeine	 2 days 2-3 days
Inhalants	Few hours
Cocaine (Benzoylecgonine)	2-5 days
Amphetamines	1-3 days

Drug toxicology: This becomes a way of confirming clinical history and when clinical history is not obtainable (in a person who is in altered sensorium), or unreliable, then drug toxicology is helpful to detect recent use of substances. It is also useful in monitoring treatment adherence and drug use status at follow-up.

Medical management of substance use disorders

Medical management can be divided into managing:

- Substance use emergencies – Intoxication, overdose
- Substance use withdrawal
- Medications to prevent relapse [either medications that reduce craving (anti-craving agents), medications that pharmacologically act like the primary substance being used (agonists), medications that can cause unpleasant responses when the primary substance is used again (antagonists or deterrents)

Different substances, depending on their chemical characteristics and mode of use, have different presentations during intoxication and withdrawal. While this guide does not address each of the substances liable to misuse, the following tables provide a quick guide to the medical management of specific substances.

Table-5: Medical Management of Alcohol related conditions

Condition	Pointers to diagnosis/Investigations	Management
Acute Alcohol Intoxication	History of recent alcohol intake Smell of alcohol on breath Signs of peripheral vaso-dilatation (Warm extremities, conjunctival congestion) Hyperdynamic circulation – Increased PR, Elevated systolic and normal diastolic BP Slurred speech, ataxic gait and disinhibition OR somnolence (In higher doses) Breathalyser can confirm recent alcohol ingestion	Keep the patient NPO in left lateral position Supportive management with IV fluids with Thiamine supplementation 100mg IV (Do not give dextrose containing IV fluids before thiamine supplementation), Proton pump inhibitors, Anti-emetics In case of agitation, use Haloperidol 2.5mg to 5mg IM/IV. Avoid benzodiazepines Monitor for withdrawal symptoms
Alcohol withdrawal syndrome (uncomplicated) (Symptoms emerge within 6 to 12 hours)	Autonomic hyperactivity – Increased pulse rate and blood pressure, sweating Tremors – Fine or coarse (Depending on severity of withdrawal) Insomnia Nausea or vomiting Psychomotor agitation Anxiety Alcohol withdrawal should be monitored using Clinical Institute Withdrawal Assessment – Alcohol Revised (CIWA – Ar) scale (Appendix 1) and treatment can be guided by the same. A score of < 10, is considered to be mild withdrawal, score of 11 – 15, is considered to be moderate withdrawal and a score of > 15 is considered to be severe withdrawal.	Outpatient: Mild to moderate withdrawal symptoms, good social support, not willing for admission Inpatient: Presence of severe or complicated withdrawal, suicidality, comorbid medical or psychiatric illness, failed outpatient treatment, poor social support, significant craving Benzodiazepines are the treatment of choice. Diazepam and Chlordiazepoxide(long acting) or Lorazepam and Oxazepam(short acting) are commonly used. Thiamine supplementation and other nutritional supplementation as indicated.

Condition	Pointers to diagnosis/Investigations	Management
Alcohol withdrawal syndrome (complicated) Peak occurrence of seizures 12-24 hours and Delirium Tremens 24-72 hours of stopping alcohol	Signs of alcohol withdrawal. In addition, generalized tonic/clonic seizures. (Seizures occurring after 72 hours, non-GTCS, no accompanying withdrawal symptoms need to be investigated for other causes and treated appropriately) Confusion, visual and auditory hallucinations (Delirium Tremens) Hyperactive delirium- Autonomic arousal Investigations: GRBS, LFT, RFT, Serum Electrolytes, Complete Hemogram, ECG, Chest X-Ray, CT – Brain **When and how to suspect delirium due to other causes?** Delirium starting after 5 days of cessation of alcohol use Absence of autonomic arousal Hypoactive delirium High fever Focal neurological signs There are some common conditions which complicate delirium tremens and should always be kept in mind, namely: Head injury, CNS infection, Pneumonia, Electrolyte imbalances, Hepatic encephalopathy, Wernicke Korsakoff Syndrome.	Aggressive management of withdrawal symptoms as there is high chance for emergence of delirium tremens Seizures- Treat with slow IV injection of Diazepam 5 to 10mg or Lorazepam 1 to 2mg every 10 – 15 minutes upto a maximum of 30mg or 6mg of Lorazepam for acute control of seizures. Subsequent doses can be using a symptom triggered approach Ideally managed in an intensive care setting with facilities for resuscitation. <u>General measures:</u> Keep the patient nil per oral (NPO) and in left lateral position Monitor and correct fluid electrolyte imbalance Cardiac and respiratory monitoring <u>Non pharmacological measures:</u> Calm and non threatening environment Talk loudly and clearly – Reorient the patient to time, place and person whenever possible Prevent injury to self and others <u>Specific measures:</u> Under monitoring by the clinician, IV Diazepam 5 to 10mg every 10 minutes or IV Lorazepam

Condition	Pointers to diagnosis/Investigations	Management
		2 to 4mg every 15 minutes is given until mild sedation is achieved. **If there is failure to achieve mild sedation**: A dose of 50mg of Diazepam or 10mg of Lorazepam within the first hour OR 200mg of Diazepam or 40mg of Lorazepam in 3 hours. Refractory delirium tremens and refer to an intensivist **If mild sedation is achieved:** Subsequent doses can be using a symptom triggered approach Treatment and prevention of vitamin deficiency related neurological syndromes: Administer 1500mg of Thiamine in three divided doses intravenously for the first 3 days. Following this continue 250mg of IV Thiamine per day for 1 week. If possible, prefer multivitamin (B complex) supplementation
	Hallucinations in clear consciousness (Hallucinosis)	Usually resolves with treatment with benzodiazepines. Antipsychotics can be used on (sos) basis in case of agitation

Condition	Pointers to diagnosis/Investigations	Management
Other common complications Alcohol- induced amnestic disorder or Wernicke Korsakoff Syndrome	Wernicke's encephalopathy is an acute neurological syndrome caused due to thiamine deficiency characterized by the triad of ataxia, ophthalmoplegia and confusion. Korsakoff's syndrome is a disorder characterized by irreversible recent memory deficits and confabulation. It often occurs in the aftermath of untreated or undertreated Wernicke's encephalopathy. Presumptive diagnosis of Wernicke's encephalopathy should be made if any 2 out of these 4 criteria are met: ● Dietary deficiency – Including current alcohol use ● Oculomotor abnormalities ● Cerebellar dysfunction ● Altered mental status	Administer 1500mg of Thiamine in three divided doses intravenously for the first 3 days. If response is noted, then continue 250mg of IV Thiamine per day till symptoms resolve. If possible, prefer multivitamin (B complex) supplementation

Table-6 : Anti-craving agents for treatment of alcohol dependence

Name	Dose	Comments
Naltrexone	50mg/day O.D. Start at 25mg for 3 days and then increase to 50mg	Useful when craving is high, when there is a positive family history of alcoholism. Avoid in liver damage. Aim of treatment is harm reduction and not total abstinence Common side effects: Headache, sedation, nausea, anorexia
Acamprosate	333mg 4 tabs thrice a day, if weight < 60kg, 6 tabs, if weight is > 60kg	Useful in patients with late onset alcohol dependence (>25 years), and predominant negative affect drinking. Can be started during detoxification. Can be used in liver damage but not in renal dysfunction. Common side effects: Diarrhoea, dizziness
Baclofen	40-60mg in 2/3 divided doses, Start at 20mg for 3 days with 20mg increments every 3 days	Works both in patients with significant positive expectations from alcohol as well as in those who have negative affect drinking and significant anxiety. Safe in liver damage. Has potential withdrawal symptoms if abruptly stopped, including a risk of seizures. Common side effects: Sedation, dizziness, urinary frequency and urge incontinence, pedal edema (dose dependent)
Topiramate	200 - 300mg/day in two divided doses. Doses to be increased by 25mg every 5 days	May be considered when there is seizure disorder. Common side effects: Cognitive dulling, paraesthesias

Table-7: Deterrent agents for treatment of alcohol dependence

Name	Dose	Comments
Disulfiram	250mg/day O.D.	Works best in well-motivated patients and those with good social support. Educate thoroughly about the disulfiram ethanol reaction & avoid in intoxicated state. Consent must be taken and explicitly documented Common side effects: Sedation, peripheral neuropathy

Medical management of nicotine use disorderscan consist either of nicotine replacement, or using medication that does not contain nicotine, but reduces the craving.

1. Nicotine Replacement therapy:

Table- 8 : Commonly available preparations for nicotine replacement

Preparation	Dosage	Administration	Adverse Effects	Further points to consider
Nicotine Gum/ Lozenge 2mg, 4mg	< 25 cig= 2mg every 1-2 hrly > 25 cig = 4mg every 1-2 hrly (maximum:24 gums/day) Duration: 12 wks Wk 1-6:1 piece every 1-2 h Wk 7-9: 1 piece every 2-4 h Wk 10-12: 1 piece every 4-8h	Chew and Park Method (Chew until a tingling / peppery taste is obtained and park in the gap between gum and inner cheek. Continue till the sensation stops i.e. around 30 min) No drink 30 minute before or after the gum. Gum can be kept more than one hour in mouth before spitting out. Lozenge gets absorbed completely.	Mouth Irritation, Jaw fatigue, Dyspepsia Hiccups	Effective in controlling withdrawal symptoms. Concomitant use of tobacco does not cause any significant problem. Can be initiated without complete stoppage of tobacco use. User can control nicotine dose
Nicotine Patch 21mg, 14mg, 7 mg	>10 cig/day : 21 mg/day <10 cig/day: 14 mg/day Duration : 10-12 wk Wk 1-6:21 mg/day or 14mg/day Wk 7-9: 14 mg/day or 7mg/day Wk 10-12: 7mg/day	Apply in clean, dry and non-hairy part of the body. Press the patch over the skin and press down on the margin. One patch per day. Do not stop using patch abruptly	Local skin reactions (erythema, pruritus, burning), headache, sleep problem (insomnia/ dreams)	Easy, as once per day use. Provides steady nicotine level.

2. Non –nicotine pharmacotherapy

Table-9: Dosage of Non – nicotine pharmacotherapy

Drugs	Dosage	Adverse effects
Varenicline	1st to 3rd day: 0.5 mg morning OD 4th to 6th day: 0.5 mg BID 8thday to 12th week: 1mg BD Start 1 week before quit date	Well tolerated Nausea, Insomnia
Bupropion	150 mg/d for 3days, then 150 mg twice a day, Start 1 wk before quit date	Increases seizure risk in higher doses

Table-10: Medical Management of Cannabis related disorders

Clinical condition	Pointers to diagnosis	Management
Acute cannabis intoxication	History of recent intake of cannabis An acutely anxious or euphoric patient with altered time perception and perceptual disturbances Other symptoms and signs of acute cannabis use – Redness of eyes, Increased appetite, Dry mouth, tachycardia Diagnostic kits are available to detect cannabis in urine.	Pharmacological: Lorazepam to be given (oral or IV/IM, as the case demands) to reduce anxiety Non-pharmacological: Reassurance to the patient Educating patients friends or family about the condition and its self limiting nature After resolution of symptoms, this can be an opportune moment to facilitate a conversation about drug use
Cannabis Dependence	Meets the criteria of dependence mentioned earlier	Manage withdrawal symptomatically – No evidence for any medications Psychosocial interventions are the main approach There is no specific pharmacotherapy. However, N – Acetyl Cysteine at a dose of 1200 to 2400mg/day, Buspirone 60mg/day and Baclofen 40 – 60mg/day are possible options
Dual diagnosis	Patient has cannabis use along with behavioural changes or abnormal behaviour lasting for longer than one or two days after suspected cannabis use	Refer to a specialist Treatment requires further characterization of the illness based on two sets of considerations: ● Possible etiology of the illness – Independent, Substance Induced ● Nature of illness – Schizophrenia spectrum, Mood disorder spectrum, Anxiety spectrum If patient is acutely agitated or uncooperative, tranquilisation with Injection Haloperidol 5mg in combination with Lorazepam 4mg can be done before referring to a specialist.

Table-11: Medical Management of Opioid Use Disorders

Clinical condition	Pointers to diagnosis	Management
Opioid intoxication or overdose	History of use. Likelihood of overdose likely in a non-tolerant person, use after a period of abstinence, use of a new type of opioid or combining opioids with benzodiazepines or alcohol. Physical Examination – Pin point pupils, Shallow respiration, Cyanosis Diagnostic kits are available to detect opioids in urine.	Suspected/Confirmed opioid overdose Step 1: Basic Life Support measures Step 2: Naloxone 0.04mg bolus dose, if no response in 2 to 3 minutes Step 3: Naloxone 0.5mg bolus dose, if no response in 2 to 3 minutes Step 4: Naloxone 2mg, if no response in 2 to 3 minutes Step 5: Naloxone 4mg, if no response in 2 to 3 minutes Step 6: Naloxone 10mg, if no response in 2 to 3 minutes Step 7: Naloxone 15mg, if no response in 2 to 3 minutes, current state not due to opioid overdose If response is noted at any of the above steps 2 to 7, then opioid overdose is confirmed. Since Naloxone has a half life of only 1 hour, patient will require an infusion for at least 6 hours. Dose required 2/3rd of total dose needed for acute reversal per hour. Monitor for at least 48 hours.
Opioid withdrawal	Characterized by craving, gooseflesh, lacrimation, body pain, constipation. Onset depends on the type of opioid. Severity of withdrawal can be measured by the Clinical Opioid Withdrawal Scale (COWS)	Opioid detoxification using Buprenorphine (a mu opioid receptor partial agonist)
	Step 1: Make sure that the patient has at least mild opioid withdrawal as determined by COWS score. to prevent risk of precipitating withdrawal.	

Clinical condition	Pointers to diagnosis Management
	Step 2: Start with a dose of 2mg and monitor for any side effects, including worsening opioid withdrawal or opioid toxicity Step 3: After 2 hours, repeat COWS score, if withdrawal persists, repeat 2mg of Buprenorphine Step 4: Continue monitoring every 2 hours. A dose of 6 – 8 mg can be given on Day 1 and in most cases is sufficient to control withdrawal symptoms Step 5: Taper doses over 10 to 14 days. Non-opioid detoxification Clonidine (a centrally acting alpha2 adrenergic agonist) Day 1: 0.1mg QID Day 2 to 4: 0.1mg TID Day 5 to 7: 0.1mg BD Day 7 to 10: 0.1mg OD and stop Because of the risk of sedation and hypotension, clonidine use is recommended in inpatient settings with BP monitoring before each dose and omitting the dose if BP <90/60 mm Hg
Opioid dependence – Long term treatment	Opioid substitution treatment (Agonist treatment) Buprenorphine+naloxone (Prevents craving and blocks the effect of illicit drugs). Initiated during the withdrawal phase Dose recommended for maintenance is 12-16 mg Antagonist therapy Naltrexone (mu receptor antagonist). Started at 25 mg per day. If no withdrawals, a further 25 mg is given Maintenance 50 mg daily; or 100 mg every 2 days; or 150 mg every 3 days

In addition, NSAID's for pain, Benzodiazepines or Z drugs for sleep and Loperamide for diarrhoea need to be supplemented.

Table-12. Medical Management of Sedative/Hypnotic related disorders (Benzodiazepines and others):

Clinical condition	Pointers to diagnosis	Management
Benzodiazepine Overdose	History of deliberate self harm attempt, access to large numbers of benzodiazepines Patient is arousable with tactile stimuli, maintains respiration and has no cardiovascular instability Suspect co-ingestion of other CNS depressants like opioids, alcohol or anticholinergics if non response to noxious stimuli, hypotension, respiratory depression	Investigations: RBS, LFT, RFT Supportive Care – IV access, SpO2 monitoring. If SpO2 is less than 92%, intubation to be considered Flumazenil: 0.2mg IV over 30 seconds, repeated every 15 minutes to a dose of 2mg. Risk of refractory seizures in dependent users. Can be used in a non dependent user with co-ingestion of alcohol/opioids and is safer than risks of intubation

Benzodiazepine withdrawal:

Management will be discussed as a part of management of dependence.

Table-13: Characteristics of syndromes related to benzodiazepine withdrawal

Clinical condition	Pointers to diagnosis	Time Course
High-dose withdrawal	Anxiety, insomnia, nightmares, seizures, psychosis, hyperpyrexia, delirium and death	Begins 1 -2 days after a short acting benzodiazepine is stopped; 3-8 days after a long-acting benzodiazepine is stopped
Protracted, low dose withdrawal	Anxiety, agitation, tachycardia, palpitations, anorexia, blurred vision, muscle spasms, psychosis, increased sensitivity to sounds and light, paresthesia	Emerge 1 -7 days after a benzodiazepine is reduced to below the usual therapeutic dose
Symptom rebound	Recurrence of same symptoms that were present before treatment but with greater intensity	Appear at the end of dose tapering and persist till treated and increase with time
Symptom Re-emergence	Recurrence of the same symptoms that were present before taking a benzodiazepine Meet criteria for a diagnosable disorder	Symptoms emerge when benzodiazepine is stopped and continue unabated with time

Treatment of benzodiazepine dependence

The most important step to prevent misuse of prescription drugs, including benzodiazepines is to educate patients about the risk of harm. Patients prescribed these drugs for more than a few days may additionally be given a booklet about the risks. Those requiring additional counselling or with anxiety may be provided some relaxation training.

Pharmacological management:

It involves either:

- Gradual reduction of prescribed benzodiazepine itself
- Changing from a short acting to a long acting preparation, usually Diazepam based on equivalent doses provided in the Table and then gradually reducing the dose

Two different tapering regimens are described below

- Doses are initially stabilized for 2 weeks

  Doses are then reduced by 10% every 1 to 2 weeks

  Reduction takes 4 to 8 weeks in total depending on the dose.
- Reduce by 10mg/day every 1-2 weeks, down to a daily dose of 50mg

  Reduce by 5mg/day every 1-2 weeks, down to a daily dose of 30mg

  Reduce by 2mg/day every 1-2 weeks, down to a daily dose of 20mg

  Reduce by 1mg/day every 1-2 weeks, until stopped

Additional Pharmacotherapy:

Small studies support the use of antidepressants (imipramine and trazodone), melatonin and mood stabilisers (valproate) as adjuncts.

GABAergic agents like Baclofen and Pregabalin may be considered but have limited evidence

Psychological management

Relaxation training and cognitive behavioural therapy combined with gradual dose reduction is more likely to be successful than either intervention alone.

Table-14: Medical management of clinical conditions consequent to inhalant use:

Clinical condition	Pointers towards diagnosis	Management
Inhalant intoxication	Characteristic odour of organic solvents Behavioural disturbances in the form of assaultiveness, apathy and impaired judgement Dizziness, nystagmus, incoordination, ataxia, slurred speech, lethargy, tremor, generalized muscle weakness, blurred vision or diplopia On examination, hyporeflexia, psychomotor retardation, stupor or coma, euphoria	Supportive care – Symptoms usually resolve within 30 minutes Monitor for serious complications – Bronchospasm, Arrhythmias, Stupor or coma Avoid using benzodiazepines for agitation as they may potentiate the effects Symptomatic treatment of behavioural symptoms
Inhalant dependence	Features of dependence Investigations: RFT, LFT, ECG, Complete hemogram, MRI – Brain (Look for white matter changes) Neuropsychological tests to assess for presence of cognitive deficits	Manage withdrawals – Supportive care, short acting benzodiazepines for anxiety or agitation during withdrawal phase Pharmacological strategies – Inadequate evidence, anecdotal evidence for the use of Baclofen as an anti-craving agent. Psychosocial interventions form the core of management. These include: Brief intervention – FRAMES Relapse prevention interventions Contingency management Working with family

Table-15: Medical management of common clinical conditions related to the use of stimulants and hallucinogens:

Clinical condition	Pointers to diagnosis	Management
Stimulant intoxication	*History:* Recent attendance of club or rave party where patient has taken powder or tablets *Symptoms and signs:* Perspiration or chills, nausea or vomiting, tachycardia or reflex bradycardia, elevated or lowered blood pressure, pupillary dilatation, psychomotor agitation or retardation, confusion, seizures, dyskinesias, dystonias or coma, persecutory delusions, muscle weakness, respiratorydepression, chest pain, or cardiacarrhythmia.	Investigations: LFT, RFT, Electrolytes, CPK, Complete Blood Count, ECG Treatment is mainly supportive as symptoms are self limiting. Avoid beta blockers. Benzodiazepines and antipsychotics to control agitation.
Hallucinogen intoxication	History: Recent attendance of club or rave party where patient has taken powder or tablets Symptoms and signs: Dizziness, nausea, weakness, anxiety blurred vision, visual pseudohallucinations and hallucinations, illusions, after imagery, decreased concentration, dissociation, depersonalization and out-of-body sensations	Treatment is mainly supportive as symptoms are self limiting. Flashbacks may be reported in a small number of patients where the “bad trip” is relived even after the physiological effects of the drug has ceased

Clinical condition	Pointers to diagnosis	Management
Stimulant (Amphetamine induced psychosis)	Use of amphetamines Phenomenology similar to schizophrenia and may be prolonged (upto 1 month) after cessation of use Paranoia, suspiciousness, visual/auditory hallucinations, delusions of reference and persecution, disorganized thought, volitional disturbances Negative symptoms are not very prominent	Requires treatment with antipsychotics Needs referral and management in a specialist setting

Managing Multiple Substance Disorders

The physician may commonly encounter patients who are presently using more than one type of substance. In such patients it is important to take a detailed history on each type of substance.

Some common guidelines to managing patients with multiple substance use are the following:

- Locus of care should preferably be inpatient care
- Monitor for withdrawals for all substances the patient is suspected to be using, with priority being given to those which are potentially life threatening (For eg: Alcohol or Benzodiazepine withdrawal)
- Long term pharmacotherapy for individual substances (Eg: Opioid substitution therapy for opioid dependence, Anti-craving agents for alcohol dependence)
- Treatment of underlying psychiatric co-morbidity, including vulnerable temperaments
- Psycho-social interventions as per the patient's need

Summary

Table-16: Quick Screen for substance use

I would like to ask you some questions about your lifestyle.
Have you ever used any of the following substances?

	Never	Yes, in the past but not in the last year	Once or twice in the last year	Monthly in the last year	Weekly in the last year	Daily or almost daily in the last year
Alcohol						
Tobacco						
Prescription drugs without prescription						
Any other drug like Cannabis Illicit opioids Inhalants						
Stimulant drugs						
Any others						

Table-17: Categorisation of risk from substance use disorder

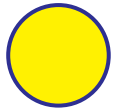
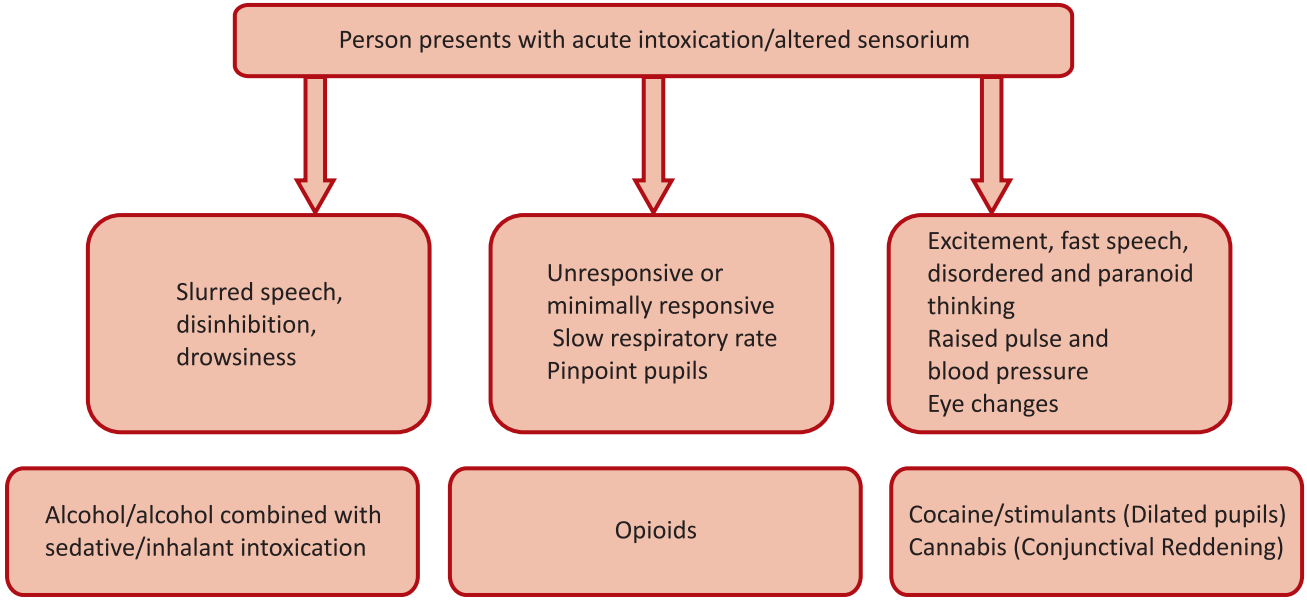
High risk 	Using daily or nearly daily *Check for:* Features of dependence	Carry out an assessment of problems associated with use (physical, psychological, social, occupational) Personalize risk and advise change Assist through detoxification and relapse prevention Arrange inpatient treatment or appropriate referral
Moderate risk 	Drinks daily or drinks more than 2 drinks on a drinking day *Check for:* Risky use (driving under influence, intoxication, risky sexual behavior) Check for harmful use Exclude dependence	Check for personal risk factors (family history, temperament, physical illness) Provide personalized feedback Arrange for referral if required Offer follow-up support
No risk or low risk 	Never used any substance Past use but not in the last year Used occasionally (less than once a month in the last year or less than 2 drinks on any drinking day) – *Check for*: risky use and harmful use	Reinforce abstinence Reinforce abstinence Provide feedback Advise regarding potential harm Personalize risk Offer follow-up support

Fig. 10: Brief summary of approach to substance related emergencies



- Exclude other common causes of confusion such as infections, hypoxia, hypoglycaemia, hepatic encephalopathy and cerebrovascular accidents (stroke).
- Ideally, confirm recent substance intake through toxicological investigations. Remember that multiple substances may be used in the intoxicated individual.
- Use antidotes as appropriate for opioid and benzodiazepine toxicity.
- Support airways, breathing, hydration
- Symptomatic treatment for behavioural excitement

RESPONSE TO THE CASE STUDY

1. What substances is S dependent on?

Ans. Alcohol, Tobacco

2. What are the characteristics of dependence S has shown?

Ans: Patient has features of tolerance, craving, loss of control, use despite harm and withdrawals

3. What are the complications S has developed?

Ans: S has had medical complications in the form of jaundice, tuberculosis. He has had complicated withdrawal in the form of seizures and delirium tremens. He has had interpersonal complications in the form of domestic violence. He has had a road traffic accident under intoxication.

4. What risk factors does S have?

Ans: Risk factors include:

Early age of initiation of substance use

Long duration of substance use before seeking treatment

Family history of substance use disorders

Externalising temperamental traits

5. What was the reason for S seeking help?

Ans: The reason for seeking treatment is due to delirium tremens

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