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National AIDS Control Organisation

India's voice against AIDS
Ministry of Health & Family Welfare, Government of India
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OPIOID OVERDOSE PREVENTION AND MANAGEMENT FOR INJECTING DRUG USERS



STANDARD OPERATING PROCEDURE

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Designed & Printed by

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Standard Operating Procedure

Opioid Overdose Prevention And Management

For Injecting Drug Users

“Currently ‘Injecting Drug Users’ (IDUs) are referred to as ‘People Who Inject Drugs’ (PWID). However, the term ‘Injecting Drug Users’ (IDUs), has been used in this document to maintain consistency with the term used presently in National AIDS Control Programme”.



Preface

In India, Targeted Intervention (TI), under the National AIDS Control Program (NACP) framework, is one of the core strategies for HIV prevention amongst injecting drug users (IDUs). Apart from providing primary health services that include health education, abscess management, treatment referrals, etc., the TIs are also designated centres for providing harm reduction services such as Needle Syringe Exchange Program (NSEP) and Opioid Substitution Therapy (OST). The services under the TIs are executed through a peer based outreach as well as a static premise based approach, i.e., through Drop-In Centres (DIC) which in turn serves as the nodal hub for all the above activities to be executed.

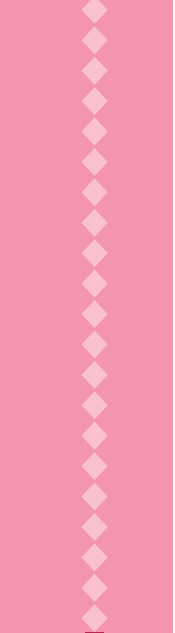
To further strengthen these established mechanisms under the NACP and to further expand the reach to vulnerable IDUs, United Nations Office on Drugs and Crime (UNODC) in India provides technical assistance to the National AIDS Control Organisation (NACO) through the Global Fund Round 9 Project (i.e., Project Hifazat), amongst others. In doing so, UNODC supports NACO through technical assistance for undertaking the following:

- 1) Conduct Operational Research
- 2) Develop Quality assurance SOPs
- 3) Develop Capacity Building/ Training materials
- 4) Training of Master Trainers

It is in this context that a series of seven Standard Operating Procedures (SOPs) including the present one on Opioid overdose prevention and management has been developed. This SOP also feeds into the broader NACP goals and helps strengthen and consolidate the gains of the TIs towards scaling up of critical services

This SOP on opioid overdose prevention and management is fourth in a series of seven SOPs developed. This SOP aims to build the capacities of TI staff on overdose prevention and management, so as to reduce the overall mortality among IDUs. It hopes to guide and address day-to-day implementation challenges and also serve as a ready reference on the issue.

This SOP therefore, has been developed with a vision to serve as an invaluable tool for the service providers engaged in IDU TI's in India and to enable them to deliver quality services. Contributions from the Technical Working Group of Project Hifazat which included representatives from NACO, Project Management Unit (PMU) of Project Hifazat, SHARAN, Indian Harm Reduction Network and Emmanuel Hospital Association was critical towards articulating and consolidating inputs that went into finalising this SOP.



Acknowledgement

The UN office on Drugs and Crime, Regional Office for South Asia (UNODC ROSA) in partnership with national government counterparts from the drugs and HIV sectors along with leading non- governmental organizations in the countries of South Asia is implementing a project titled “Prevention of transmission of HIV among drug users in SAARC countries” (RAS/H13).

As part of this regional initiative UNODC is also engaged in the implementation of the Global Fund Round -9 IDU- HIV Project (i.e. HIFAZAT). Project Hifazat aims to strengthen the capacities, reach and quality of harm reduction among IDUs in India. It involves providing support for scaling up of services for IDUs through the National AIDS Control Programme.

We would like to acknowledge the invaluable feedback and support received from various stakeholders which includes NACO, Project Management Unit (PMU) of Project HIFAZAT, Emmanuel Hospital Association (the Principal Recipient of the grant “Global Fund to Fight AIDS, Tuberculosis and Malaria- India HIV-IDU Grant No. IDA-910-G21-H”), SHARAN, Indian Harm Reduction Network and individual experts who have contributed significantly in the development of this document.

Special thanks are due to the UNODC Project H13 team for their persistent and meticulous efforts in conceptualising and consolidating this document.

Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
DIC	Drop-in Centres
EHA	Emmanuel Hospital Association
FSW	Female Sex Workers
HIV	Human Immunodeficiency Virus
HRG	High Risk Groups
IDUs	Injecting Drug Users
IHRN	Indian Harm Reduction Network
MARP	Most-At-Risk Population
MSM	Men having Sex with Men
NGOs	Non-Governmental Organisations
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NSEP	Needle Syringe Exchange Programme
PLHIV	People Living with HIV/AIDS
ORW	Outreach Workers
OST	Opioid Substitution Therapy
PE	Peer Educators
TI	Targeted Interventions
UNODC ROSA	United Nations Office on Drugs and Crime, Regional Office for South Asia
SOP	Standard Operating Procedure

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1. Introduction

There are an estimated 2.27 million people living with HIV/AIDS in India ¹. Among the general population, the prevalence of Human Immuno-deficiency Virus (HIV) is 0.32% with 83% of all infections being in the most productive age group 15-49 years ². HIV is present in all the states of India. However, the spread of HIV is not uniform—either geographically or among population groups. There are certain states and districts which are more affected by HIV than others. Similarly, there are certain population groups which have higher HIV prevalence compared to the general population. These population groups, because of their behaviours are more vulnerable to HIV infection; such groups are called high risk groups (HRGs) or the currently used term – Most-At-Risk Population (MARP). These HRGs include Female Sex Workers (FSW), Men having Sex with Men (MSM) and Injecting Drug Users (IDU).

There are an estimated 15.9 million IDUs globally; over 75% are believed to reside outside of the developed world ³. It is estimated that there are 177,000 IDUs in India with an estimated HIV prevalence of 9.19% ⁴. IDUs are at high risk for premature mortality, sometimes 13 times higher than that of the general population ⁵.

Among IDUs who use opioids, especially among those who inject heroin, overdose and associated death is an urgent issue. Recent data shows that in Russia alone, there were 7500 deaths due to drug overdose in 2006. Opioid poisoning is the second leading cause of death in USA. In South Asian settings, there are no well researched studies that document the rates of death among IDUs. A study in Chennai, showed that overdose was the main cause of increased death among IDUs ⁶.

Factors such as younger age, unemployment, frequency of injecting, history of drug treatment and injecting heroin mixed with diazepam are significantly associated with overdose. About 65% of overdose cases take place either at home or at a friend's place. A significant number of overdose deaths occur in people who combined opiate use with alcohol.

HIV infection and overdose are linked to each other in a number of ways. It is seen that overdose is a significant cause of mortality among IDUs who are HIV positive. Conversely, it is also true that HIV infection puts IDU at greater risk of overdose (due to systemic disease, and also liver damage associated with HIV infection). Even non-fatal overdose may exacerbate HIV related diseases. Overdose prevention and management services can be easily linked to HIV prevention services, as the modality of service provision is similar. Finally, prevention and management of overdose enhances the accessibility of IDUs to HIV prevention services ⁷.

¹ Country Progress Report UNGASS, 2010

² NACO, 2010

³ Mathers BM; 2008

⁴ NACO, 2010

⁵ Hulse GK, 1999

⁶ Solomon et al, 2007

⁷ Why overdose matters for HIV. A publication of the Eurasian Harm Reduction Network and Open Society Foundations.

Available at: http://www.soros.org/initiatives/health/focus/ihrd/articles_publications/publications/why-overdose-matters-20100715/why-overdose-matters-20100715.pdf. Accessed on 2nd January 2012

Purpose of Standard Operating Procedure

The purpose of this standard operating procedure is to provide a set of standard guidelines on ***Overdose prevention and management***. This SOP is a handholding tool for those involved in working with Injecting Drug Users. This SOP is intended for use, especially by the project managers, counsellors/nurses and doctors working in the IDU TI. However, this document will also prove useful to other service providers who are not working in a TI setting.

2. Basics of Opioids

Opioids are a class of drugs that have actions similar to opium. Opioids act on the brain and produce a number of effects. Apart from getting a high, the users also experience the following effects:

- ▶▶▶ Drowsiness: due to 'depressant' effect on the brain
- ▶▶▶ Suppression of cough: due to the effect of opioids on the brain cough centre
- ▶▶▶ Constriction of the pupils in the eyes
- ▶▶▶ Constipation: due to the effect of opioids on the gut system

Some of the commonly used opioids include:

- ▶▶▶ Morphine
- ▶▶▶ Codeine
- ▶▶▶ Heroin
- ▶▶▶ Buprenorphine (commonly available as *Tidigesic*, *Lupigesic*²)
- ▶▶▶ Pentazocine (commonly available as *Fortwin*)
- ▶▶▶ Dextropropoxyphene (commonly available as *Proxyvon*, *Spasmoproxyvon*, *Parvon Spas*)

With regular intake of opioids, an individual develops 'tolerance' towards opioids, which means that the individual requires larger doses of opioids to get a 'high' or to prevent withdrawals. This is due to changes in the brain/body of the individual, which tries to balance the effect of opioids.

Similarly, when the individual stops opioids, his body loses tolerance to the effect of opioids. This 'loss of tolerance' can develop rapidly within 3 – 4 days of the individual stopping his/her opioid intake. This loss of tolerance is one of the main reasons of opioid overdose.



Photograph of Opium poppy

²Using brand names of drugs is in no way prejudiced against a particular brand/manufacture

3. What is Overdose?

Overdose occurs when a person takes opioid drugs or opioids in combination with other drugs, in quantities that the body cannot handle. As a result, the brain is not able to carry out normal body functions. The person may pass out and stop breathing, and in extreme cases, have heart failure, or experience convulsions. Overdose can be fatal, and is one of the most common causes of death among opioid dependent users.

3.1 Risks factors for Opioid Overdose

- ▶▶▶ **Staying away from drugs:** When a regular opioid user (also referred as client) who had stopped using opioids for some period of time, starts taking the same dose of opioid that he/she was using before he/she stopped, he may develop overdose. These periods of staying away from opioids can be due to abstinence (either by oneself or by getting admitted to a drug treatment centre) or due to imprisonment (in case, the person was not using drugs during his/her stay at prison).
- ▶▶▶ **Change in the purity of the opioids:** Most of the clients use opioids available from the streets. The purity of the sample there, is not guaranteed. Hence, even if the client is using the same amount of heroin, due to increased purity of the street sample, a client may develop overdose.
- ▶▶▶ **Mixing different type of drugs:** If a client mixes other drugs which depress brain functioning along with heroin or other opioids, the client is at greater risk for overdose. This may include mixing with heroin, drugs such benzodiazepines (Diazepam, Clonazepam, Lorazepam or Nitrazepam), Chlorpheniramine (available commonly as Avil) or Promethazine (available commonly as Phenergan) or even alcohol. It may be remembered that as some benzodiazepines act for a longer period of time, even a gap of 2–3 hours between the opioid and benzodiazepine may not be enough to prevent overdose.
- ▶▶▶ **Physical illness or recent infections:** If the client is weak due to recent illness, dehydration or under nutrition, then the person will not be able to handle the same dose as of a healthy body. Overdose is more likely if liver and kidneys are not working well. In case of poor health, a smaller dose of opioid can also produce overdose.
- ▶▶▶ **Mental health:** In case of mental illness such as depression, an opioid user may overdose as a way of attempting suicide.
- ▶▶▶ **Past overdose events:** Recent research has shown that people who have overdosed in the past are at much greater risk of future overdose. If client has overdosed in the past, then he may be at a greater risk of overdose in the future. IDU TI programmes should highlight the risk of repeat overdose and train outreach staff for providing education/awareness and Naloxone distribution among people with past overdose experience.

- ▶▶▶ **Using other drugs while on Opioid Substitution Therapy:** The use of street drugs over and above the usage of methadone or buprenorphine increases overdose risk, especially with methadone. As methadone is a long lasting and potent opiate. Use of depressants such as alcohol, opioids, benzodiazepines should be avoided when on methadone or buprenorphine.

- ▶▶▶ **Drug Interactions with antiretroviral and other prescription medications:** Different drugs used in HIV and tuberculosis treatment can increase the risk of overdose or cause withdrawal symptoms in people dependent on opioids. If one is taking antiretroviral therapy along with other legal or illegal drugs, it's always best to consult one's doctor.

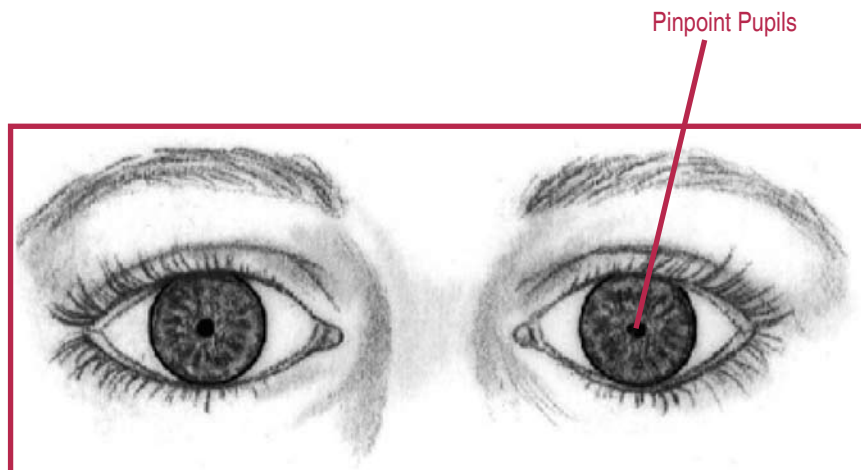
Risk factors of Opioid Overdose

- ▶▶▶ Staying away from the drugs
- ▶▶▶ Change in the purity of the drugs
- ▶▶▶ Mixing different type of drugs
- ▶▶▶ Physical illness
- ▶▶▶ Mental illness

3.2 Signs & Symptoms of Opioid Overdose

Opioid overdose does not happen immediately, it sets in usually over the course of 1 hour to 90 minutes; as the person slowly fails to respond and breathing becomes more difficult. While there are many signs/symptoms of opioid overdose, the presence of the following 3 symptoms/signs confirms that the individual has overdosed on opioids:

- ▶▶▶ **Coma:** A state of unconsciousness, in which a person cannot be awakened and fails to respond to painful stimuli, light or sound. Usually, an IDU in a state of intoxication, seems drowsy and he can be aroused from this state of drowsiness. However, in case of overdose, he cannot be aroused even after calling his name or a painful stimulus (such as rubbing the sternum).
- ▶▶▶ **Pinpoint pupils:** Constriction of the pupils, in which the pupils become smaller in size than normal. An IDU may have smaller pupils when he is intoxicated, and has larger pupils when he is in withdrawals. In case of overdose, the pupils become very small and do not dilate when a light is thrown on the eye using a torch. This is termed as 'pinpoint' pupils, where the pupils appear like a pinhead.



- ▶▶▶ **Respiratory depression:** Difficulty in breathing, in which the rate of respiration (number of breaths per minute) decreases. Normally, one breathes (inhales and exhales air) 12 – 20 times a minute. Opioids depress the respiratory centre of the brain. As a result, the number of breathes per minute decreases (less than 12/minute) in overdose. Due to severe respiratory depression, enough oxygen does not enter the body that results in finger nails and lips turning blue, drowsiness, resulting in coma.

It is very important to recognise these signs as early as possible when dealing with an opioid user. Early detection of overdose leads to better chances of recovery.

Warning Signs of Opioid overdose

- ▶▶▶ 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

4. Preventing Overdose

Opioid overdose can be easily prevented. Clients should be educated on strategies to prevent opioid overdose. It is essential to also educate the partners and family members of IDUs on overdose prevention.

The following are simple ways to prevent opioid overdose:

- ▶▶▶ Avoid mixing drugs, and mixing drugs with alcohol. If you are drinking alcohol and injecting together, inject first and wait for it to take effect before you start drinking.
- ▶▶▶ When your tolerance is low divide the normal dose in half, do a tester shot and allow the drugs to take effect before you try more. Try changing the route of administration, that is, if you usually inject, try snorting.
- ▶▶▶ If you have a new dealer or unfamiliar supply, try a small amount at first to check how strong it is.
- ▶▶▶ Understand that medications prescribed by a doctor may interact with street drugs and cause an overdose.
- ▶▶▶ Avoid using alone; if you overdose, you need someone around to help. For example, put together a support team of people who know that you are going to use drug alone and ask them to check on you.
- ▶▶▶ Understand that you're less likely to overdose from snorting or smoking drugs than injecting them. Also, pushing in the entire shot quickly and at once is more likely to cause overdose than a slower injection technique.
- ▶▶▶ When someone is overdosing don't try to induce vomiting or ask them to drink water/coffee/tea or take cold showers etc. These don't help in treating overdose.
- ▶▶▶ Take care of your health. Eat well, drink plenty of water, and sleep properly.

5. Overdose Management

If you think someone is overdosing: check the following:

- »»» Is the person breathing?
- »»» Is the person responsive (do they answer when you shake them and call their name)?
- »»» Does he/she respond to stimulation (such as sternum rub)?
- »»» Can the person speak?
- »»» What is the colour of his/her skin?

Following are the basic steps to respond effectively to most opioid overdose cases. The steps can be best remembered by an acronym “SCARE ME³”

“SCARE ME”

- S – Stimulation (wakening):** This is the first step in overdose management and can be done by the people around the client.
- C – Call for medical help:** If the client doesn’t respond to stimulation then, 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 DIC or during outreach, then the TI staff should be equipped to handle such situations.
- A – Airway:** Make sure there is nothing in the throat and the airway is clear of blockage.
- R – Rescue Breathing:** If someone is suffering from opioid overdose, getting oxygen into his/her body is very important. The TI staff should be trained on rescue breathing as it is the MOST important response to opioid overdose.
- E – Evaluate:** If the client is breathing or not.
- M – Muscular Injection of Naloxone:** Injecting the client with Naloxone is an extremely effective way to reverse overdose. It can be given by trained clinical staff of TIs or by emergency medical personnel.
- E – Evaluate and Support:** Since overdose is unpredictable and involves many factors, it is important for TI staff to monitor and support the client for at least an hour or two.

³SCARE ME – Acronym has been developed by the Chicago Recovery Alliance

Stimulation (Wakening)

Try to wake him/her by –

- ▶▶▶ Calling their name, shouting for example “Amar!”
- ▶▶▶ Shaking him/her.
- ▶▶▶ Pressing the breastbone with your knuckles.



Call for medical help

- ▶▶▶ If the client doesn't respond to noise or pain, call for medical help (here medical help does not mean only doctors but also involve the clinical staff working in TIs. In some TIs, the crisis management team can be contacted).
- ▶▶▶ Put the person in the recovery position (put the person on their side with his/her hands under the head) This way, in case of vomiting, the person would not choke on it.
- ▶▶▶ Do not leave the client alone. Make sure there is somebody to monitor the client.

Recovery position (STEP-1)



Recovery Position (STEP -2)



Recovery position (STEP-3)



Recovery position (STEP-4)



Airway

- ▶▶▶ Make sure nothing is blocking their airway and that the mouth is clear. If necessary, use your finger to get the stuff out.



Rescue Breathing:

Follow the steps described below for rescue breathing:

Rescue Breathing (STEP-1)



To check for breathing put your ear near the client's mouth, and nose and listen to his/her breath while watching the chest to see if it is rising and falling consistently.

Rescue Breathing (STEP-2)



Lay the client who is overdosing flat on his/her back.

Rescue Breathing STEP-3



Take a deep breath and then place your own mouth over the client's mouth making a tight seal with your lips.

Rescue Breathing STEP-4

Exhale completely into the client's mouth. If you are doing correctly, you should be able to see his/her chest rise as the air goes in.

Evaluate

- ▶▶▶ Is the client any better?
- ▶▶▶ Can you obtain Naloxone quickly enough?
- ▶▶▶ Can you prepare an injection of Naloxone?

Muscular Injection

- ▶▶▶ Prepare the Naloxone.
- ▶▶▶ Inject it straight into upper arm, butt, or thigh.
- ▶▶▶ Remember intramuscular (IM) injection is as effective as intravenous (IV) injection of Naloxone.

Evaluate and support

- ▶▶▶ Is the client breathing on his/her own?
- ▶▶▶ If the first shot doesn't work within 4 minutes, give him/her a second dose of Naloxone.
- ▶▶▶ Comfort the client – he/she will suffer from opioid withdrawals after Naloxone injection. Remind the client that the effect of Naloxone will wear off in a little while and they will stop feeling sick.
- ▶▶▶ Try not to let him/her use more drugs until the effect of Naloxone wears off. Naloxone wears off in 30-90 minutes. Stay with them until they go to the hospital.

What not to do while helping

- ▶▶▶ Don't leave someone who's overdosing alone except if you absolutely must leave the area to call for help; the client could stop breathing and die.
- ▶▶▶ Don't put the client in the bath; it could lead to death.
- ▶▶▶ Don't serve anything to drink or induce vomiting; the client could choke.
- ▶▶▶ Do not make him/her drink salt water, or put salt in the mouth. This does not help. On the contrary, he/she may choke.
- ▶▶▶ Do not inject salt water as this is dangerous and can cause sudden death among the clients.

6. Naloxone

Naloxone is a safe injection to treat opioid overdose, thereby preventing death associated with overdose. Naloxone reverses life-threatening depression of the brain and respiratory system by blocking opioid for 30-90 minutes. Naloxone temporarily blocks opioid drugs from affecting the body; however it doesn't remove the opiates from the body.



Naloxone in Action

- It wakes you up and makes you breathe.
- It doesn't get you high.
- It has no effect except in the presence of opioid drugs.
- It is routinely used in Emergency Medical Services.

Naloxone Dose

- 0.4 – 2 mg per dose. The dose can be repeated, if necessary, at 2 – 3 min intervals.
- If there is no response after a total of 10 mg of Naloxone has been given, consider the possibility that the person may be suffering from conditions other than opioid overdose.
- Intramuscular (IM, inside the muscles) or Sub-Cutaneous (SC, below the skin) routes may be used (at same doses as mentioned above) if Intravenous (IV) administration is not feasible.

Mechanism of Action

Onset: 2min (IV); 2 – 5 min (IM, SC).

Duration: 30 – 120 min depending on route; IV route acts quicker than IM / SC route

Availability of Naloxone

Naloxone is marketed in India under the name of “Nalox” (Manufacturer: Samarthlife Sciences) – Nalox Inj 0.4 mg (1ml) – INR 70-80 per ampoule of Naloxone injection.

Using Naloxone

To administer Naloxone, follow these steps:

A. Preparing Naloxone for injection

While you prepare the Naloxone, make sure the client (who has overdosed) is being looked after or put him in the recovery position to make sure he doesn't choke.

- Break the ampoule low enough so that the needle can be inserted far enough in to draw up the Naloxone.
- Insert the needle, ideally use a long, intramuscular needle (usually 3 cm or longer), and draw up all the Naloxone into the syringe.
- Push the plunger down to clear air from the syringe before injecting, just as you would before injecting drugs.

B. Injecting Naloxone

- Remove clothing and clean the injection site with an alcohol swab before injecting.
- Inject the Naloxone into the upper arm/shoulder or outside of the thigh.
- It's best not to inject in the butt, since there is relatively more fat, absorbing Naloxone will be slower.
- Don't waste time trying to inject in a vein, it's difficult and unnecessary.



C. After you've given Naloxone

- ▶▶▶ The effect of Naloxone will begin within one to five minutes and it lasts for 60-90 minutes.
- ▶▶▶ During that time, the client still needs to be monitored.
- ▶▶▶ You should continue rescue breathing if he is not breathing well on his/her own.
- ▶▶▶ If the person has not responded to Naloxone within 4 minutes, you should administer another dose if you have it.
- ▶▶▶ If the person does not respond to the 2nd dose, the problem may be something other than opioid overdose and you should call for help if you haven't already.
- ▶▶▶ Naloxone is usually active in the body for 60–90 minutes, which is a much shorter period than most opioid drugs. Because of this, it's possible that an overdose could return after the Naloxone wears off. If overdose continues and comes back, repeat all the above mentioned steps until the person has recovered.
- ▶▶▶ It is important to monitor someone who has overdosed for a couple hours afterward to make sure he/she is fine.
- ▶▶▶ Explain to the client who has overdosed what had happened to him/her and advise him/her not to use more drugs.
- ▶▶▶ Naloxone's intervention is visible as the client usually wakes up suddenly, opens his/her eyes and takes a deep breath.

D. Withdrawal Symptoms after Naloxone injection

- ▶▶▶ While treating opioid overdose, Naloxone may cause mild to severe withdrawal symptoms for someone who is dependent on opiates.
- ▶▶▶ It is important to provide continuous medical support and counselling to clients for couple of hours after giving Naloxone.
- ▶▶▶ The signs and symptoms of opioid withdrawal in a patient physically dependent on opioids may include, but are not limited to, the following: body aches, diarrhea, tachycardia, fever, runny nose, sneezing, sweating, yawning, nausea or vomiting, nervousness, restlessness or irritability, shivering or trembling, abdominal cramps, weakness and increased blood pressure.

E. Contraindications of Naloxone

Naloxone injection is contraindicated in patients known to be hypersensitive to naloxone hydrochloride or any of the other ingredients contained in the formulation.

NALOXONE INJECTION – FACTS

- ▶▶▶ Naloxone is a safe, effective antidote to opioid overdose. It has no effect on non-opioid drugs (like Vint, Valium, LSD, etc).
- ▶▶▶ Naloxone has no potential for abuse and has been included in the WHO Model List of Essential Medicines for many years.
- ▶▶▶ It can be given by intramuscular injection and subcutaneously in case Intravenous injections are not feasible. It is best to inject in the upper arm or thigh.
- ▶▶▶ A normal dose is 1 to 2 ml (0.4 to 2 mg); it is safe to give more, or to repeat dose if the first doesn't work. Up to 10 mg of Naloxone can be given.
- ▶▶▶ Naloxone may cause withdrawal feelings, especially at higher doses or if given intravenously.
- ▶▶▶ It takes one to five minutes to act, and lasts for 60-90 minutes; it's possible for overdose to return because Naloxone wears off faster than heroin and other opiates.
- ▶▶▶ It is important to continue supporting the person for a couple of hours following overdose.
- ▶▶▶ Naloxone will not cause any harm if injected to a person who is not having an overdose.
- ▶▶▶ Naloxone should be stored at room temperature and should be kept away from light.
- ▶▶▶ Naloxone has a limited "shelf life." Trained responders need to be aware of the expiry date stamped on the box and to obtain replacement of Naloxone before that date.
- ▶▶▶ In many countries Naloxone is considered under the law as first aid or emergency.

7. Recovery Counselling

After the client has fully recovered from an overdose he/she should be counselled to prevent further occurrence of overdose. Emphasis should be made on the following issues:

- ▶▶▶ The client should be made aware of the risk factors of overdose, signs/symptoms of overdose and the emergency measures to be taken during overdose.
- ▶▶▶ The client should be offered other drug treatment options such as Opioid Substitution Therapy (OST).
- ▶▶▶ The client should be warned that there is further chance of overdose if he does not practice safe injecting methods.

8. Operational issues

Every staff of the IDU TI should play an important role in the prevention and management of overdose among IDUs. The staff should be led by the project manager of the IDU TI. The following are some of the issues that should be borne in mind in the operationalisation of this process:

• **Preparing an 'Action Plan'**

The project manager along with the doctor and nurse should prepare a clear protocol, in case overdose is reported in the field. The protocol should include the following –

- ▶▶▶ Who should be contacted in case an overdose is reported
- ▶▶▶ Where will the client be referred to
- ▶▶▶ What are the basic steps to be followed in case of overdose
- ▶▶▶ Contact number of the ambulance services
- ▶▶▶ List of places where naloxone would be available

• **Information gathering**

For mounting an effective response, every IDU TI should have information on the nature and prevalence of overdose among the clients who receive services from their TI. For collecting this information, the outreach staff should regularly enquire with their clients and other stakeholders:

- ▶▶▶ If they have experienced any incidence of overdose
- ▶▶▶ If they have witnessed any incidence of overdose
- ▶▶▶ Any factors which may make the clients vulnerable for overdose (such as change in the purity of the drugs being injected, any recent discharge from a treatment centre/prison, etc.)

The information thus collected, should be recorded by the outreach staff and discussed in the weekly review meeting. Finally, the project manager and/or the counsellor should review these incidents of overdose that have occurred in the past month as well as responses provided by the TI staffs in managing these overdose cases.

• **Training and capacity building**

Each and every staff of the IDU TI should receive training on the basics of overdose, including the risk factors; recognition of signs/symptoms of overdose; educating on prevention of overdose; and finally how to provide basic support during overdose. These trainings should ideally be led by the team of doctor and nurse of the IDU TI along with the project manager. These trainings should be repeated at periodic intervals. The project manager/counsellor should also conduct 'mock drills' on overdose management.

• **Educating the clients, family members and peers**

The IDU clients receiving services from the TI should be educated on the risk factors for occurrence of overdose, prevention of overdose and what to do in case of an overdose. These can be done in the field or in the DIC. The family members of the clients should also be educated on these aspects either through home visits or in a group meeting organised for the purpose in the DIC. The education sessions can be made lively through group discussions, audio-visual aids on overdose, and conducting practice sessions on recovery position, and other management steps.

• **Referral and linkage services**

The TI should have a linkage with the hospitals and dispensaries where the IDU client can be taken in case of an overdose. A mechanism of referral should be established for this purpose. The linkages should be established by conducting a networking meeting with the referral agency, led by the project manager and the doctor of the IDU TI. Support for providing services should be solicited in this networking meeting, and the details of the contact person should be collected. The networking meeting should be repeated periodically, as well as at times when there is a change in the administration of the referral agency.

Apart from hospitals, advocacy should also be carried out with the local police officials to ensure that IDUs and the outreach staff are able to access the services for overdose without fear of harassment.

• **Ensuring Naloxone availability**

The project manager of the IDU TI should advocate for the availability of the Naloxone injection at those places where the overdosed client is likely to be referred to. This should be done by conducting periodic meetings and review with the agencies where naloxone injections are available.

9. Summary and conclusion

Opioid overdose is a common cause of death among injecting drug users. There are many factors which place an individual at risk of opioid overdose. Overdose can be managed in community as well as primary healthcare setting with minimal training and expertise. Naloxone injection can be used to treat opioid overdose. Educating the IDU clients, their family members and peers can easily prevent overdose and its associated harms, including death.

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