

Opioid use disorder (OUD) or opioid addiction or also called chronic brain disorder has touched the lives of most people in our society. There were 1,489 suspected drug overdose deaths in 2018 in BC. There were more than 4.5 times as many illicit drug overdose deaths as motor vehicle accident deaths in 2018. Overdoses were highest in males at 80%. Most happen inside a property - 87%. Polysubstance (mixture of illicit drugs, alcohol, pharmaceuticals) use was 81% of deaths that occurred. It is important to note that many of them were living with family members, friends or roommates at the time of death -- in some cases they were not aware of drug use.

OUD is a chronic brain disease as result of repeated use of opioids and causes significant damage to the brain physiology and neural pathways. People with OUD get their dose either through prescription, or use prescriptions from others or illicit drugs obtained through criminal elements. OUD is a chronic disease that requires a wide range of treatments to mange this condition. OUD significantly increases the mortality and morbidity if left untreated.

Individuals with OUD can go from positive reinforcement to use drugs to get high, to a negative reinforcement to use drugs to avoid withdrawals. When OUD individuals they take opioid, it will bind to an opioid receptor and it releases a dopamine neurotransmitter in the reward system of the brain which causes a feeling of pleasure. As result of repeated use, this pathway

are up-regulated (more receptor) and less sensitive to opioids. Therefore, individuals with OUD develop tolerance and require higher amounts to achieve same amount of pleasure. Also, when opioids bound to opioids receptors, it suppresses the release of noradrenaline which causes sedation. slow respiration, drowsiness and all other signs of opioids intoxication. In the event of taking strong or high amounts of opioids, the intoxication can change to overdose. This is a medical emergency which can be fatal. Overdoses can cause constriction of pupils, slow or absent breathing, snoring or chocking, gurgling sounds, circulatory collapse such blue lips and nails and cold and clammy skin with low blood pressure -- which can lead to cardiac arrest and coma.

In the event of overdose ambulance should be called and while waiting, CPR should be initiated with breaths. However, if someone is not breathing and unresponsive and you do not know how long they have been unconscious, they should be given chest compressions in addition to breath. Also. Naloxone should be given if available. Naloxone should be repeated if no effects is seen within 3 to 5 minutes or if the initial

effects wear off while waiting for ambulance to. Naloxone is an opioid antagonist and has a high affinity for opioid receptor. Because of high affinity, it will kick off the illicit drug from the receptor and can reverse the overdose.

Naloxone is available both intranasal and intramuscular dosage form and can be acquired free of charge in different community settings and pharmacies. It is recommended that family and friends familiarize themselves with naloxone and get a take-home Naloxone kit. Withdrawal happens after intoxication or overdose and usual signs of opioid withdrawal is opposite of opioids intoxication. Withdrawals symptoms include pupil dilation, anxiety, irritability, diarrhea, muscle cramps and flu like symptoms. Withdrawal comes within 6 to 30 hours depending if they are taking short acting opioids such as immediate release oxycodone or heroin -- or long acting opioids such as Methadone. Usually acute withdrawal symptoms peaks in three days, however psychological craving may persist for weeks or even months. Pharmacies

usually use opioid agonist (fill the receptor) such as methadone, suboxone or slow release morphine to decrease withdrawals and craving. and compulsive drug use. Dealing with OUD patients on a daily basis in pharmacies requires heighten awareness for different signs of abnormalities and big dose of compassion.

One last item. Interior Health Authority has partnered with Ask Wellness Society. Manshadi Pharmacy, and Kipp-Mallery Pharmacy to provide drug checking services. Testing is fast (5-10 minutes), anonymous (no personal data is collected), and free to the public. This test can identify the main component in the drug sample and possibly up to 2-3 other components such as Fentanyl. Samples taken are small and can be returned. However, you need to remember drugchecking can not indicate that a drug is safe to consume.



Missagh Manshadi, B.Sc. Pharm Pharmacist/Owner Manshadi Pharmacy

