DC HEALTH
GOVERNMENT OF THE DISTRICT OF COLUMBIA

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Health Notice for District of Columbia Healthcare Providers

Medetomidine, a potent sedative, found in the District of Columbia's Drug Supply

SUMMARY

This announcement is to notify public health workers, harm reduction staff, first responders, clinicians, medical examiners and coroners, forensic and clinical laboratories, and all other related communities about new information surrounding the adulterant medetomidine, which has previously been detected in the District of Columbia, but is now being seen more frequently in seized drug samples, used syringe residue and illicit drug paraphernalia locally. Medetomidine has now been seen as an adulterant in multiple mass overdose events across the country.

BACKGROUND

Medetomidine is a central nervous system (CNS) depressant appearing as an adulterant alongside fentanyl in the recreational drug supply. Recent mass overdose outbreaks in Maryland, Philadelphia, and Chicago have been associated with fentanyl or heroin drug products containing medetomidine, as well xylazine and/or other substances.[1] In cases where medetomidine ingestion is suspected or confirmed, severe adverse effects have been noted. These effects include sedation, analgesia, muscle relaxation, anxiolysis, bradycardia, hypotension, hyperglycemia, and hallucinations. The duration of action is noted to be longer for medetomidine relative to xylazine.

Like xylazine, medetomidine is a non-opioid sedative whose effects cannot be reversed by naloxone. Medetomidine is more potent and selectively absorbed than xylazine based on studies done in animals. The duration of sedation provided by medetomidine lasts for 2-3 hours, but sedation can be prolonged with co-administration of opioids. There is little known about its effect on humans. Since it is not an opioid, naloxone does not work on this substance. Current use includes as a cutting agent often mixed with opioids. As a result, patients will likely present as a traditional opioid overdose and need naloxone. Thus far, medetomidine has only been detected with fentanyl and heroin in tested samples in the District of Columbia. There have been no indication patients have deliberately consumed medetomidine, but rather the observed instances have been inadvertent consumption with heroin/fentanyl.

RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

Medetomidine may cause prolonged sedation, which heightens the role of administering rescue breaths, placing the individual in the rescue position, and monitoring the individual after administration of naloxone.[2] Monitoring should be focused on breathing and ensuring individuals who experience an overdose are able to protect their airway, which may be compromised in the setting of prolonged sedation. Once individuals are breathing on their own and taking a minimum of one breath every six seconds, they no longer require more naloxone. Providers should, however, be vigilant for hyperventilation after reversal. The duration of sedation provided by medetomidine lasts for 2-3 hours, but this sedation will likely be prolonged with the

co-administration of opioids. Medetomidine has been shown to potentiate and prolong the effects of opioids.

Medetomidine withdrawal has not been well described but is likely similar to dexmedetomidine withdrawal, which has been well described in the pediatric critical care literature and includes hypertension, tachycardia, and agitation[2,3]. Clonidine has been shown to be an effective therapy in the for withdrawal management in these cases. Providers should add clonidine early in withdrawal management and titrate to effect in cases where medetomidine is suspected.

ADDITIONAL RESOURCES

If you or someone you know is at risk of an overdose, we encourage you to keep naloxone nearby. It's free and easy to use. To get naloxone, text "**LiveLongDC"** to 888-811 for naloxone pick up sites or delivery and locations of treatment. You can text "Ready" to 888-811 to get a list of treatment providers open at that time and you can find a list of services by Ward at https://myrecoverydc.org/. Additionally, you can contact the Fire and Emergency Medical Services Mobile Integrated Health Team at 202-480-3224 daily from 10:00 a.m. to 8:00 p.m. for buprenorphine initiation. For more information about the District's Overdose response strategy, please visit Live Long DC.

REFERENCES

1. Medetomidine Rapidly Proliferating Across USA — Implicated In Recreational Opioid Drug Supply & Causing Overdose Outbreaks (cfsre.org)
2. Philadelphia Health Advisory
3. Karhuvaara S, Kallio A, Salonen M, Tuominen J, Scheinin M. Rapid reversal of a2-adrenoreceptor agonist effects by atipamezole in human volunteers. Br J Clin Pharmacol. 1991;31(2):160–165.

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