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The Regional Municipality of Durham Information Report

From: Commissioner & Medical Officer of Health
Report: #2024-INFO-23
Date: April 12, 2024

Subject:

N-desethyl etonitazene and protonitazepyne: “New” nitazene opioids circulating in Toronto’s unregulated opioid supply

Recommendation:

Receive for information

Report:

1. Purpose

1.1 To provide an update on N-desethyl etonitazene and protonitazepyne, which have been identified in Toronto’s unregulated drug supply.

2. Background

2.1 Canada is in the midst of one of the most serious public health crises in the country’s history - the toxic and illegal drug and overdose crisis. No community has been left untouched.

2.2 The emergence of an illegal market in new synthetic opioids has become a major public health issue, associated with a substantial increase in unintentional overdoses and drug-related deaths.

2.3 Often users are unaware that they are exposing themselves to these high-potency opioids in combination with other depressants.

2.4 Some potential reasons for the appearance of high-potency synthetic opioids in the local street drug supply include lower production costs, and a stronger or longer lasting high for the user.

2.5 Drug checking services provide critical information on the composition of the unregulated drug supply in real time, informing and educating people who use

drugs and people who care for people who use drugs, as well as informing advocacy, policy, and research. Incredibly sophisticated and sensitive technologies are required to effectively check highly contaminated opioids that are most likely to contribute to overdose.

- 2.6 [Toronto's Drug Checking Service](#) (TDCS) aims to reduce the harms associated with substance use and, specifically, prevent overdoses by offering people who use drugs timely and detailed information on the contents of their drugs.
- 2.7 Beyond educating individual service users, results for all samples are combined, analyzed, and publicly disseminated every other week to communicate drug market trends and inform care for people who use drugs, advocacy, policy, and research.
- 2.8 For the first time, TDCS has identified N-desethyl etonitazene and protonitazepyne in Toronto's unregulated drug supply.
- 2.9 N-desethyl etonitazene and protonitazepyne are high-potency synthetic nitazene opioids.
- 2.10 N-desethyl etonitazene is considered to be up to 10 times stronger than fentanyl. Protonitazepyne, also known as N-pyrrolidino protonitazene, is considered to be more than 20 times stronger than fentanyl.
- 2.11 Since N-desethyl etonitazene and protonitazepyne are so strong, the risk of overdose is increased and greater than normal doses of naloxone may be required to rouse individuals experiencing an overdose.

3. Current Status

- 3.1 N-desethyl etonitazene was first identified at the [Centre for Addiction and Mental Health](#) (CAMH) on February 23, 2024. The sample collected in Toronto's west end was a yellow/beige powder that was expected to be (i.e., got or bought as) fentanyl. The sample did not contain fentanyl – but instead contained N-desethyl etonitazene and caffeine.
- 3.2 Protonitazepyne was first identified by CAMH on March 6, 2024, and again the following day on March 7, 2024. The samples collected in Toronto's west end were blue powders that were expected to be oxycodone (OxyContin). The samples did not contain oxycodone – but instead contained protonitazepyne and etonitazepyne.
- 3.3 Analysis at CAMH identified N-desethyl etonitazene and protonitazepyne using liquid chromatography-Orbitrap high resolution mass spectrometry (LC-HR-MS).
- 3.4 Analysis at [St. Michael's Hospital](#) identified N-desethyl etonitazene and protonitazepyne using gas chromatography-mass spectrometry (GC-MS).
- 3.5 Health Canada's [Drug Analysis Service](#) (DAS) identified protonitazepyne using GC-MS, nuclear magnetic resonance spectroscopy (NMR), and gas chromatography-

infrared spectroscopy (GC-IR) in samples submitted by Canadian law enforcement agencies and public health partners. They have not yet identified N-desethyl etonitazene.

- 3.6 It is unlikely that emerging onsite drug checking technologies can identify N-desethyl etonitazene and protonitazepyne at this time as their libraries are being developed and their limits of detection are being determined.
- 3.7 On March 3, 2024, Durham Region Health Department (DRHD) issued a Drug Alert to service providers regarding a new substance that has the potential to be present in Durham Region's drug supply. A review of Durham Regional Police Service (DRPS) drug sample returns indicates that protonitazepyne was detected in samples seized by DRPS that were submitted for testing in 2023. Protonitazepyne was the only substance detected in these samples and they were described as oxycontin tablets.

4. Previous Reports

- 4.1 Report [2023-INFO-26](#) provided information on the appearance of benzodiazepines and xylazine in the unregulated drug supply.
- 4.2 Report [2023-INFO-33](#) provided an update on local trends and strategies to address mental health and opioids in Durham Region.
- 4.3 Report [2023-INFO-46](#) provided an update on the Durham Region Opioid Response Plan.
- 4.4 Report [2023-INFO-47](#) provided information on the application process for Consumption and Treatment Services in Ontario.
- 4.5 Report [2023-INFO-60](#) provided an update on the report: [Opioid Toxicity and Access to Treatment among Adolescents and Young Adults in Ontario](#), released by The Ontario Drug Policy Research Network (ODPRN), Public Health Ontario (PHO) and the Office of the Chief Coroner of Ontario/Ontario Forensic Pathology Service on June 27, 2023.
- 4.6 Report [2023-INFO-74](#) provided information on DRHD's school-based health promotion services, including mental health promotion and substance use prevention.
- 4.7 Report [2023-INFO-77](#) provided an update on the report published by the Canadian Centre on Substance Use and Addiction, entitled [Canadian Substance Use Costs and Harms](#), released in March 2023 and revised in July 2023.
- 4.8 Report [2023-INFO-83](#) provided an update on the report entitled: [Characteristics of Substance-Related Toxicity Deaths in Ontario: Stimulant, Opioid, Benzodiazepine, and Alcohol-Related Deaths](#), by PHO and ODPRN, released on September 14, 2023.

- 4.9 Report [2023-INFO-92](#) provided an update on the renewed [Canadian Drugs and Substances Strategy](#).
- 4.10 Report [2024-INFO-06](#) provided an update on Medetomidine/Dexmedetomidine: “New” Veterinary Tranquilizer Circulating in Toronto’s Unregulated Fentanyl Supply.

5. Relationship to Strategic Plan

- 5.1 This report aligns with the following strategic goal and priority in the Durham Region Strategic Plan:
- a. Goal 2: Community Vitality: 2.2 Enhance community safety and well-being.

6. Conclusion

- 6.1 In Durham Region, test strips for fentanyl and xylazine are available through the Needle Syringe Program. Locally, drug checking services that utilize mass spectrometry are not available. DRPS receives Health Canada drug testing results for samples seized and submitted to Health Canada.
- 6.2 DRPS is a member of the Opioid Task Force and advises DRHD regarding Health Canada drug testing findings that are noteworthy and/or indicate a new drug is present within the region. As per the nature of Health Canada’s drug testing methodology, such results from toxicology are several months behind real-time data.
- 6.3 DRHD, in partnership with the Opioid Task Force members will continue to monitor information related to the presence of new toxic drugs within the Greater Toronto and Hamilton Area to inform the [Durham Region Opioid Response Plan](#).
- 6.4 Durham Region Health Department has developed a new interactive dashboard to replace the current version of the Durham Region Opioid Information System (DROIS) at durham.ca/opioidstats. The new dashboard focuses on time trends by presenting all opioid-related data together in a single visual and allows users to explore the data by week, month, or year. Moving averages are a new feature, added to the weekly data, to help provide context to overall trends.

Respectfully submitted,

Original signed by

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