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MEDICAL ADVISORY

Xylazine and Benzodiazepines in the Unregulated Drug Supply

TO: Family Physicians
Emergency Departments
Infectious Disease Physicians
LTCH Administrators/Directors of Care
Medical Laboratories
Infection Control Professionals

FOR YOUR INFORMATION:

Central West Medical Officers of Health
Academy of Medicine
Dr. Michael Stacey, VP Medical, Hamilton Health Sciences
Mr. Bruce Squires, President, McMaster Children's Hospital
Dr. Sarah Jarman, Chief of Staff, St. Joseph's Healthcare
Dr. Greg Rutledge, Deputy Chief of Staff, St. Joseph's Healthcare
LHIN, Dr. Jennifer Everson, Primary Care Lead and Dr. Bill Krizmanich, Emergency Department Lead.

FROM: Dr. Bart Harvey, Associate Medical Officer of Health, Hamilton Public Health Services

DATE: March 2nd, 2023

Current Situation

Hamilton Public Health Services (PHS) is notifying healthcare providers of recent information regarding the unregulated supply of drugs in Ontario. On February 28th, 2023, the Office of the Chief Medical Officer of Health and the Office of the Chief Coroner for Ontario shared a memo regarding the presence of xylazine and benzodiazepines in the current drug supply and risks of drug toxicity.

Data from the Office of the Chief Coroner for Ontario, Health Canada's Drug Analysis Service, and Toronto's Drug Checking Service all indicate frequent benzodiazepine presence in the unregulated drug supply, along with a recent increase in the presence of xylazine. These substances are often found present with opioids and may lead to symptoms like those associated with opioid-related drug poisonings. However, neither xylazine or benzodiazepines respond to Naloxone administration.

Preliminary data from the Office of the Chief Coroner for Ontario show that xylazine was detected in 2-4% of opioid toxicity deaths between 2021 Q1 and 2022 Q3. Additionally, benzodiazepines were detected in 63% of opioid toxicity deaths in 2021 and 41% in 2022.

Xylazine and Benzodiazepines

Xylazine, commonly known as "tranq" or "horse tranquilizer", is a non-opioid sedative, muscle relaxant and pain medication typically used in veterinary settings. It is not approved for human use in Canada or the United States. Xylazine is associated with several harms, including:

- severe skin lesions (with injection drug use),
- central nervous system depression,
- respiratory depression,
- cardiovascular effects (e.g. low blood pressure/ slowed heart rate)
- death

Benzodiazepines are classified as central nervous system depressants or sedative-hypnotics. Several benzodiazepines (e.g. etizolam, bromazolam and flubromazepam) have been identified within the unregulated drug supply. Like xylazine, acute exposure to benzodiazepines may cause central nervous system depression, respiratory depression, and death.

The use of xylazine and benzodiazepines alone is associated with a risk of toxicity, however this risk can increase significantly when these substances are combined with depressants like opioids.

Recommendations for Healthcare Providers

Reinforce harm reduction messaging with patients who use illicit drugs.

- **Careful Use.** Test the effect by using a small amount first and avoid using drugs alone.
 - Use with a friend, avoid using drugs at the same time so that one person may respond in the case of a drug poisoning event.
 - Call a friend, family member or the National Overdose Response Service at 1-888-688-6677 (NORS) for anonymous 24-hour support before and while using substances.
 - Use drugs in a supervised consumption site, like the Consumption and Treatment Services site located at 70 James St. S in Hamilton.
- **Carry Naloxone.** It is ineffective in response to xylazine/ benzodiazepine toxicity but will help with any opioids.
- **Call 911.** In cases of a suspected drug poisoning call 911 and administer Naloxone.
 - Perform CPR while awaiting support.
 - Multiple rounds of Naloxone may be required to respond.
 - [The Good Samaritan Drug Overdose Act](#) provides some legal protection for persons seeking emergency help.
- **Wound Care.** Seek medical support for any unusual wounds or lesions.

Connect patients with additional support services or resources when possible.

- **Naloxone.** Obtain [free Naloxone kits at various service locations](#) in Hamilton.
- **Community Supports.** The following agencies provide a variety of harm reduction supports:
 - Pharmacy Naloxone Program / Drug & Alcohol Helpline: 1-800-565-8603
 - The Aids Network (harm reduction supplies and HIV support): 1-866-563-0563
 - The Hub (drop-in support and service navigation): 365-833-7854
 - The Van (harm reduction supplies): 1-866-563-0563
 - Grenfell Ministries (low-barrier supports for people who use drugs): 1-855-923-9363
 - Support and Safer Supply, SASS Clinic (clinic providing prescribed alternatives to the illicit drug supply): 1-833-426-7678 ext. 2
- **Treatment Services**
 - Alcohol, Drug & Gambling Services: 905-546-3606
 - St. Joseph's Healthcare Hamilton Womankind Addiction Service: 905 545-9100
 - St. Joseph's Healthcare Hamilton Men's Addiction Service: 905 527-9264
 - Alternatives for Youth (youth ages 12-25): 905-527-4469 ext. 3 for intake (referral form available at www.ay.on.ca)
- **Opioid Agonist Therapies (OAT).** For people with opioid use disorder, access to opioid agonist treatments like buprenorphine (Suboxone), methadone, and slow-release oral morphine (Kadian) is available at rapid access addiction medicine clinics.
 - RAAM Clinic Hamilton (referral form available at www.stjoes.ca)

Additional Information

For more information related to this medical advisory, please call the Harm Reduction Intake Line Monday to Friday 8:30 a.m. to 4:30 p.m. at 905-546-4276.

For more information on xylazine, benzodiazepine and the unregulated drug supply, the following resources are available from the Canadian Centre on Substance Use and Addiction (CCSA):

- [Risks and Harms Associated with the Nonmedical Use of Benzodiazepines in the Unregulated Drug Supply in Canada.](#)
- [Xylazine \(CCENDU Drug Alert\).](#)