

Nitazenes causing severe opioid overdoses in NSW

n SAFETY NOTICE 009/24

Issue Date:	30 May 2024
Distributed to:	Chief Executives; Directors of Clinical Governance; Director, Regulation and Compliance Unit
KEY MESSAGE:	NSW Health clinicians need to be aware of harms related to nitazenes (potent novel synthetic opioids) and how to respond.
ACTION REQUIRED BY:	Chief Executives and Directors of Clinical Governance
REQUIRED ACTION:	<ol style="list-style-type: none"> 1. Distribute this Safety Notice to all staff who may encounter cases of toxicity following use of drugs. 2. Ensure there is adequate supply of naloxone for emergency use and consider that higher doses may be required. Consider providing take-home naloxone to at-risk patients. 3. Ensure appropriate notification of cases as outlined in 'Notification' section below. 4. Confirm receipt and distribution of this notice within 72 hours to MOH-PRISE@health.nsw.gov.au.
We recommend you also inform:	<p>Directors, Managers and Staff of:</p> <ul style="list-style-type: none"> • Emergency Departments • Nursing, Medical/Midwifery and Pharmacy Services • Drug and Alcohol Services • Mental Health Services • Toxicology Units • Ambulance • Forensic Medicine Services • Intensive Care Units. <p>Other relevant staff, departments and committees.</p>
Expert Reference Group:	<ul style="list-style-type: none"> • Centre for Alcohol and Other Drugs, NSW Ministry of Health • Standing Panel on Toxicity Risk, NSW Ministry of Health • Emergency Care Institute Clinical Director
Website:	https://www.health.nsw.gov.au/sabs/Pages/default.aspx http://internal.health.nsw.gov.au/quality/sabs/index.html
Review date:	May 2025

Background

NSW Health has previously issued public drug warnings and Safety Notices ([SN:011/22](#) and [SN:031/23](#)) on harms related to nitazenes (potent novel synthetic opioids). This Notice is to alert clinicians to recent detections of nitazenes causing severe opioid toxicity.

Situation

- Four recent cases of people experiencing severe opioid overdose have been linked to the use of nitazenes.
- Three of the cases intentionally took a nitazene which they reported as etazene (etodesnitazene) by either insufflating (snorting) or smoking. In two of these cases toxicological testing showed protonitazepyne (N-pyrrolidino protonitazene), a more potent nitazene. These two cases also had bromazolam in their toxicology results, suggesting that nitazenes may also be mixed with potent illicit benzodiazepines, increasing the risk of overdose.
- A fourth case used nitazenes unintentionally, as they believed they were using cocaine and ketamine. Toxicology testing showed protonitazene.

Assessment

Nitazenes are becoming more prevalent in international and local drug markets. Nitazenes are highly potent mu-opioid receptor agonists. Protonitazene is 100 times more potent than heroin, and protonitazepyne is thought to be stronger (there is limited published data about nitazenes). Nitazenes may have a longer duration of action and pose a higher risk of respiratory depression compared with other opioids.

Recommendations

- Have a high index of suspicion for nitazenes in patients using opioids who have high naloxone requirements OR in patients with atypical effects, such as an opioid toxidrome after use of cocaine, ketamine, methamphetamine, or vape devices.
- Provide airway management, oxygenation, and ventilation support in addition to naloxone, where opioid poisoning is suspected.
- Higher titrated doses of naloxone (800 micrograms or more) may be required when nitazenes are present.
- Nitazenes are not detectable using common urine drug screening methods (see 'Notification' section if concerns about nitazene use).
- People may have used test strips to check their drug content. Some nitazenes will be detected using nitazene test strips, but not fentanyl test strips.
- Contact the NSW Poisons Information Centre (PIC) or your local toxicology service for advice on management.
- Discuss the extremely high potency of nitazenes with patients considering using nitazenes. Where available, supply take-home naloxone to people who use illicit drugs and on discharge following opioid poisoning. Take home naloxone can also be accessed free through [participating pharmacies](#), [Needle and Syringe Program outlets](#), [non-government organisations](#), or through a [postal service](#). Provide patients with a consumer information sheet for either [Prenoxad®](#) or [Nyxoid®](#).

Notification

Notify the NSW Poisons Information Centre (13 11 26) or NSW Ministry of Health (MOH-PRISE@health.nsw.gov.au) of:

- any toxicity or death following use of nitazenes OR
- any case of opioid overdose requiring high doses of naloxone OR
- any cases of opioid overdose after use of non-opioid drugs (such as cocaine, methamphetamine, or ketamine) OR
- for unusual clusters of heroin overdoses.

Please ensure that urine, blood, drug samples or paraphernalia are collected and retained. The Prescription, Recreational and Illicit Substance Evaluation (PRISE) program is a NSW Health drug surveillance program. Further information is available [here](#).