

Changing face of Nitazenes

- A WEDINOS perspective

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A network unlike any other...



More than just a drug testing service. By focussing on consumer level samples, WEDINOS is a national drug markets, trends and threats monitoring system.

WEDINOS – Nitazene overview

- On 14th April 2021 WEDINOS received a sample of an unknown white powder from Wakefield, England
- Following analysis using Ultra Performance Liquid Chromatography Quadrupole Time-of-flight Mass Spectrometry this sample was profiled as containing metonitazene
- Since then WEDINOS has identified nitazene(s) in over 220 samples from across the United Kingdom

W018254

Date Received: 14 Apr 2021

Postcode: WF1 -

Purchase Intent: Found in taxi

Package Label: Not Stated

Sample Colour: White

Sample Form: Powder

Consumption Method: Not Stated

Self-Reported Effects: Not Stated

Sample Upon Analysis (Major): Metonitazene

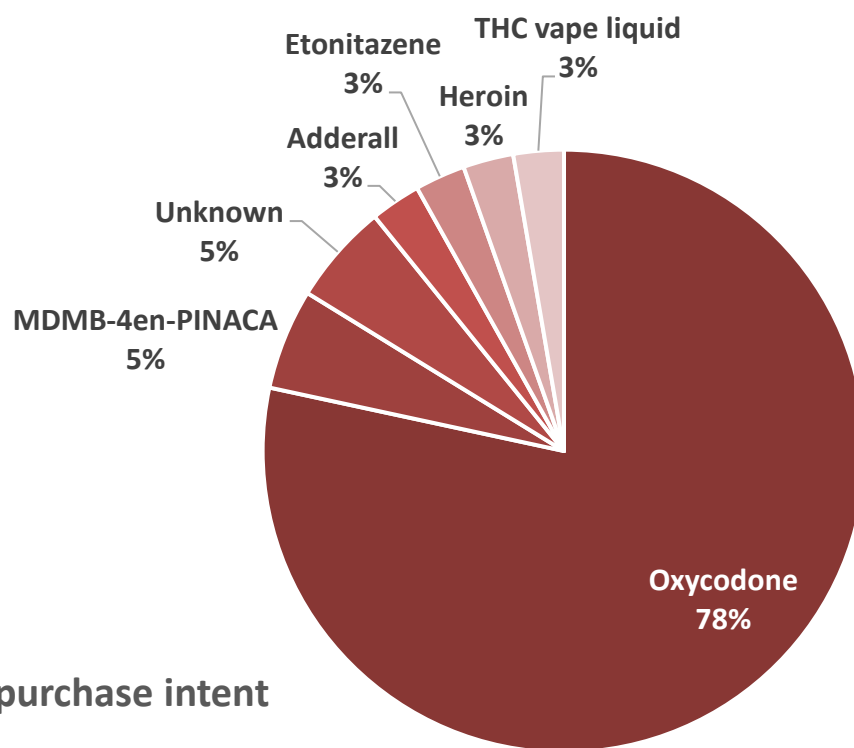
Sample Upon Analysis (Minor):



[Click to Enlarge](#)

Changing face of nitazene...**Oxycodone**

- From the receipt of the first sample to the end of 2022
 - 37 samples profiled as containing a nitazene
 - 29 of the these samples were submitted as oxycodone

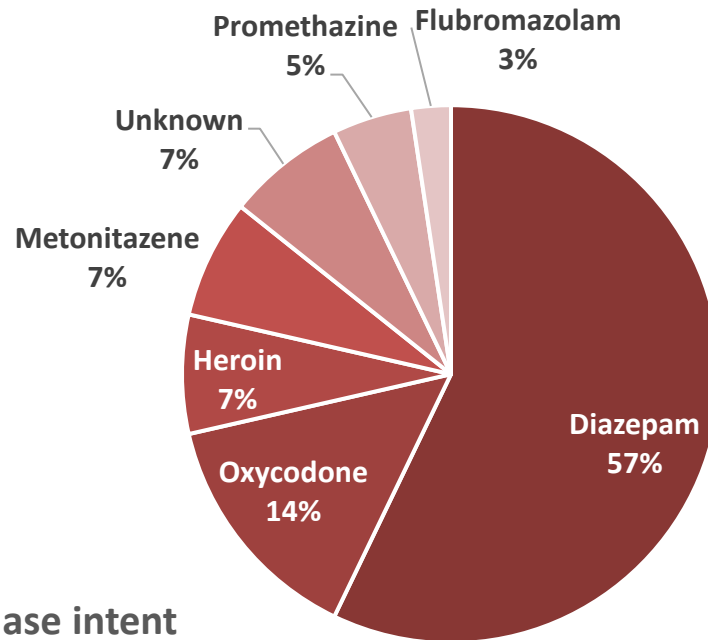


Nitazene samples - purchase intent

Changing face of nitazene...**Diazepam**



- Oxycodone remained the most common purchase intent listed until July 2023
 - At that time **diazepam** began to appear as a purchase intent
 - By November 2024, it was the most commonly stated purchase intent



Nitazene samples - purchase intent

Are you getting what you think you're getting?



The logo for WEDINOS, featuring the word 'WEDI' in a bold, black, sans-serif font above the word 'NOS' in a larger, bold, black, sans-serif font. A red lightning bolt graphic is positioned between the two words.

Collecting • Testing • Informing

Are you getting what you think you're getting?

Over the past several years WEDINOS has been reporting on and highlighting concerns relating to *substitutions within the illicit benzodiazepine market*.

Primarily, these substitutions have involved other, albeit more potent, benzodiazepines.

Since, September 2023, WEDINOS has seen an increase in the number of samples submitted as *benzodiazepines*, particularly *diazepam*, that have been profiled as containing a *nitazene*, and on occasion another benzodiazepine, but *no diazepam*.

Three small images showing different pills: a blue round pill, a white round pill, and a blue round pill.

Since September 2023, 25 samples, from across the United Kingdom, submitted in the belief, they were **diazepam**, were profiled following analysis as containing the nitazene, **metonitazene** (Sept =8, Oct=12, Nov=5), and on 23 of those occasions, this was identified alongside the benzodiazepine, **bromazolam**.

Nitazenes were originally developed in the 1950s as analgesics. Found to have potent analgesic effects, the clinical development of nitazenes was abandoned due to the increased risks of adverse events. Currently, there are no drugs of this class approved as human or veterinary medicines.

Metonitazene is a high potency synthetic opioid that exceeds the potency of fentanyl and morphine.

Benzodiazepines are a class of sedative substances. These work by increasing the effects of a naturally occurring chemical in the brain gamma aminobutyric acid (GABA). Where prescribed, they are recommended for short-term use at the lowest possible dose. This is to reduce the risks of tolerance, dependence and withdrawal symptoms

Bromazolam is a triazolobenzodiazepine, structurally related to alprazolam. Originally developed as a candidate medicine, it was never approved for use. There is currently little scientific literature available relating to bromazolam. A "common" oral dose of bromazolam, as described by users of the substance, is 1 to 3mg. The onset of effects is between 15 and 45 minutes, with a duration of action of 5 to 8 hours

With the emergence of nitazenes within the illicit benzodiazepine market, we recommend, individuals who are consuming unprescribed benzodiazepines, speak to their local drug treatment service about **Naloxone** (often described as the opioid antidote) or visit **DAN 24/7** and see their click and collect service (for those living in Wales) <https://dan247.org.uk/naloxone-click-and-deliver/>

11/12/2023

- Information shared with all stakeholders
- Same tag line as DAN 24/7
- Proactive media and communications strategy
- Information and promotion of naloxone amongst non-opioid using groups

Changing face of nitazene...**Heroin**



- Heroin, although WEDINOS had profiled nitazene in heroin previously...
 - From November 2023 increased number of samples submitted as heroin
 - Cluster of fatal and non-fatal drug poisonings in Adamstown and Roath areas of Cardiff amongst heroin users
 - Fast testing identified the presence of nitazenes
 - Cluster(s) of non-fatal drug poisonings in areas of the Anuerin Bevan Health Board area
 - Local services proactively promoting WEDINOS and obtaining heroin samples for analysis

Nitazenes within the heroin market

Nitazenes within the heroin market

Public Health Wales have been notified of four suspected fatal drug poisonings and several non-fatal drug poisoning events that have occurred in the Adamsdown/Roath area of Cardiff between 23rd December 2023 - 1st January 2024.

It was reported that the individuals concerned were believed to have injected heroin.

Whilst cause of death and post-mortem toxicology remain unconfirmed, South Wales Police forensic analysis of paraphernalia seized at scene of one of the incidents has detected the presence of metonitazene, monoacetylmorphine, cocaine, paracetamol, caffeine and benzocaine.



Since January 2023, WEDINOS received and analysed seven samples, five from England and two from Wales, in the belief, they were **heroin**, that were profiled following analysis as containing nitazene(s), (Jun 23=1, Sept 23=2, Nov 23=1, Dec 23=2, Jan 24=1).

Nitazenes identified were isotonitazene and metonitazene. With one sample containing an unconfirmed nitazene (the most recent sample received in January 2024 from Cardiff, Wales).

Nitazenes were originally developed in the 1950s as analgesics. Found to have potent analgesic effects, the clinical development of nitazenes was abandoned due to the increased risks of adverse events. Currently, there are no drugs of this class approved as human or veterinary medicines.

Isotonitazene has potent analgesic effects. In mice studies isotonitazene was found to be 500 times more potent than morphine. However, studies in rodents should be interpreted with caution as they do not accurately reflect opioid toxicity in humans.

Metonitazene was around 10 times more potent than morphine as an analgesic

The import, supply, possession with the intent to supply and possession in a custodial institution of isotonitazene and metonitazene are all offences under the Psychoactive Substances Act 2016

The Advisory Council for the Misuse of Drugs (ACMD) states individuals may be unaware of the inclusion of nitazenes, the high potency of some of these compounds provides a substantial risk of severe and potentially fatal overdose.

The ACMD report – A review of the evidence on the use and harms of 2-benzyl benzimidazole ('nitazene') and piperidine benzimidazolone ('bromophine-like') opioids can be found here:

<https://www.gov.uk/government/publications/acmd-advice-on-2-benzyl-benzimidazole-and-piperidine-benzimidazolone-opioids>

Clinical management of toxicity with nitazenes recommends the use of **Naloxone** as an antidote. Individuals using heroin, or those concerned in the care of individuals using heroin should speak to their local drug treatment service about **Naloxone** or visit **DAN 24/7** and see their click and collect service (for those living in Wales)

<https://dan247.org.uk/naloxone-click-and-deliver/>

08/01/20

- Information provided to all stakeholders
- WEDINOS media day 8th February 2024
- Support to services
- Reassurance around naloxone
- Priority accessibility to testing for samples via services linked to overdose

Nitazene's...2023/24

- 138 samples found to contain nitazenes

W049484

Date Received: 20 Mar 2024

Postcode: EH32 -

Purchase Intent: Heroin

Package Label: Heroin

Sample Colour: Brown

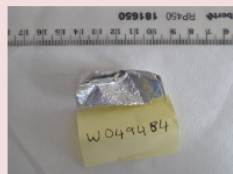
Sample Form: Solid

Consumption Method: Intravenous

Self-Reported Effects: Relaxed, Memory Loss, Loss of consciousness

Sample Upon Analysis (Major): xylazine, Paracetamol, Noscapine, Caffeine, 6-MAM

Sample Upon Analysis (Minor): Metonitazene, Heroin, Papaverine



[Click to Enlarge](#)

W049446

Date Received: 15 Mar 2024

Postcode: M20 -

Purchase Intent: Diazepam

Package Label: Accord Diazepam

Sample Colour: Blue

Sample Form: Tablet

Consumption Method: Oral

Self-Reported Effects: Enhanced Senses, Relaxed, Nausea, Memory Loss, Loss of consciousness, Tiredness

Sample Upon Analysis (Major): Metonitazene, Bromazolam

Sample Upon Analysis (Minor):



[Click to Enlarge](#)

- Five of these samples were submitted with a nitazene listed as the purchase intent.
- The majority of nitazenes were profiled in samples submitted as diazepam, 54 per cent (n=75). Followed by heroin, 17 per cent (n=24) and oxycodone, 16 per cent (n=22)
- Other samples where nitazenes were identified were submitted as: unknown, promethazine, cannabis, flubromazolam, SCRA, temazepam and zopiclone

Guess who?

WED
NOS



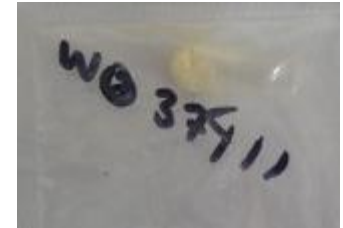
Guess who?



Oxycodone



Zopiclone



Flubromazolam



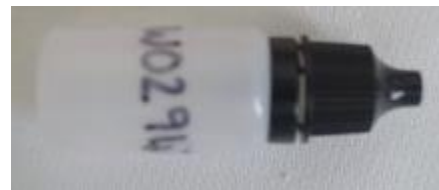
Heroin



Alprazolam



Cannabis



THC Vape



MDMB-4en-PINACA



Promethazine