

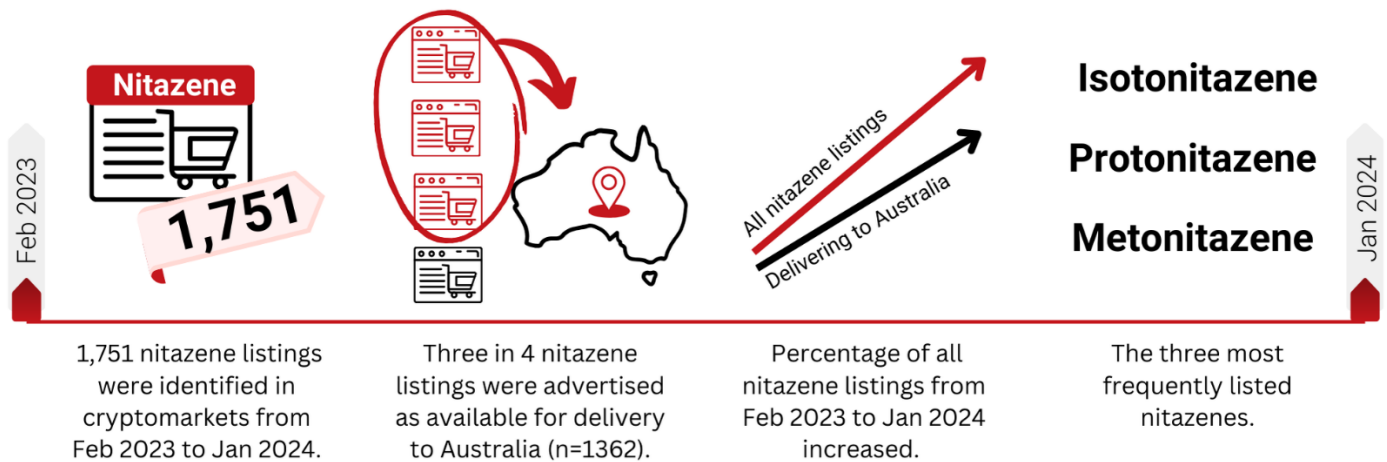


Availability of nitazenes for purchase in Australia and internationally via cryptomarkets

Nicola Man, Vandit Sadaphale, Monica J. Barratt, Raimondo Bruno, Rachel Sutherland and Amy Peacock

This report was prepared by the National Drug and Alcohol Research Centre, UNSW Sydney

For further information: drugtrends@unsw.edu.au | <https://doi.org/10.26190/unsworks/30235>



Introduction

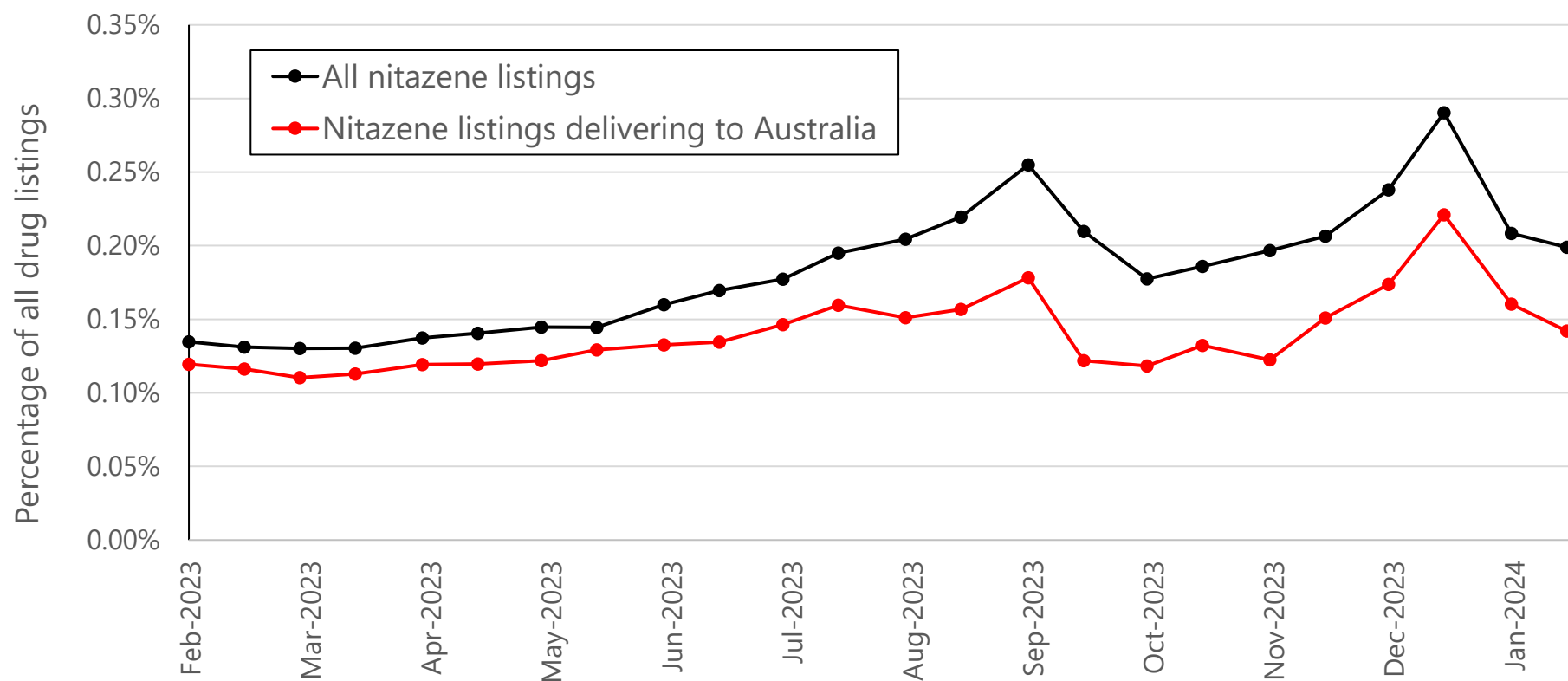
Nitazenes are a class of highly potent synthetic opioids, first developed in the 1950s for their potential analgesic effects but never approved for therapeutic use given their toxicity risk (1). More recently, clandestine laboratories have started illicitly manufacturing nitazenes (2), with subsequent health harms documented in a number of countries (3, 4). In Australia, there have been increasing detections of nitazenes, and growing reports of harms from their use (5, 6). While only a small proportion of drug purchases occur via cryptomarkets ('darknet marketplaces'), there is some evidence that these marketplaces are used for the purchase of new psychoactive substances like nitazenes (7). Study of the sale of new psychoactive substances (including nitazenes) on cryptomarkets may thus serve as an early indicator of potential emerging drugs of concern. The aims of this bulletin were thus to:

- 1) Describe the trend in nitazene listings, overall and those that deliver to Australia, over a 12-month period; and,
- 2) Identify the most frequently listed nitazenes on cryptomarkets.

Methods and Results

- Data on drug listings were collected twice a month from 15 cryptomarkets (excluding Abacus market) for the period from February 2023 to January 2024. For more information, refer to the [Drugs and New Technologies \(DNet\) bulletin](#) for the corresponding period (8).
- A total of 1751 listings selling nitazenes were identified. This constituted 0.2% of all drug listings in the 12-month period. There was an increase in the percentage (of all drug listings) and number of nitazene listings on the cryptomarkets; the fluctuations or peaks in September and December 2023 may be due to market closures and difficulties in accessing markets (Figure 1).

Figure 1. Total nitazene listings, and nitazene listings offering delivery to Australia, as a percentage of all cryptomarket listings, February 2023 to January 2024



All (N=1751)	53	53	59	67	68	74	70	66	82	97	103	99	46	63	123	62	54	59	53	52	89	88	87	84
To Aus (N=1362)	47	47	50	58	59	63	59	59	68	77	85	81	34	45	86	36	36	42	33	38	65	67	67	60
% nitazenes to Aus (78%)	89%	89%	85%	87%	87%	85%	84%	89%	83%	79%	83%	82%	74%	71%	70%	58%	67%	71%	62%	73%	73%	76%	77%	71%

The data table shows the number of all nitazene listings ("All"), the number of nitazene listings delivering to Australia ("To Aus") and percentage delivering to Australia out of all nitazene listings ("% nitazenes to Aus"), e.g. in the first column, $47/53 \times 100\% = 89\%$.

- The overall percentage of nitazene listings which offered delivery to Australia¹ (i.e., as a percentage of all drug listings) slightly increased over the 12-month period, albeit to a lesser extent than observed for total nitazene listings (Figure 1).
- Approximately 3 in 4 nitazene listings (78%, n= 1362) were offered as available for delivery to Australia, although this declined over the 12-month period (89% versus 71%; see data table in Figure 1 above).
- Isotonitazene, protonitazene and metonitazene were the most frequently identified nitazenes in the 12-month period; this was consistent when studying overall listings and specifically those which offered delivery to Australia (Table 1).

Table 1. Specific nitazenes identified in cryptomarket listings

Nitazene	Number and percentage of listings	
	All (% of total nitazene listings)	Offer delivery to Australia (% of total nitazene listings delivering to Australia)
Isotonitazene¹	459 (26%)	301 (22%)
Protonitazene²	420 (24%)	289 (21%)
Metonitazene³	228 (13%)	207 (15%)
Protonitazepyne⁴	122 (7%)	117 (9%)
Etomethazene	116 (7%)	116 (9%)
Etodesnitazene⁵	96 (5%)	66 (5%)
Metonitazepyne	90 (5%)	87 (6%)
N-desethyl isotonitazene⁶	72 (4%)	61 (4%)
Butonitazene	59 (3%)	59 (4%)
Etonitazene⁷	38 (2%)	28 (2%)
N-desethyl etonitazene	24 (1%)	18 (1%)
Etonitazepyne	6 (0.3%)	4 (0.3%)
> 1 nitazene identified⁸	21 (1%)	9 (0.7%)
Total	1751 (100%)	1362 (100%)

Note. ¹ Isotonitazene includes those mis-spelt as isotoniazene. ² Protonitazene includes propoxynitazene, pronitazene, and those mis-spelt as rotonitazene. ³ Metonitazene includes those mis-spelt as metanitazene. ⁴ Protonitazepyne includes N-pyrrolidino protonitazene. ⁵ Etodesnitazene includes etazene and those mis-spelt as etazen. ⁶ N-desethyl isotonitazene is also known as norisotonitazene but the synonym was not identified in the cryptomarket listings. ⁷ Etonitazene includes those mis-spelt as etonitazen. ⁸ These are listings with more than one specific nitazene identified.

Discussion

There is evidence of increased availability of nitazenes for sale via cryptomarkets from February 2023 to January 2024. This increase was evident globally, but also for listings where products could purportedly be shipped to Australia. While we cannot confirm whether increased availability has led to changes in purchasing, these findings do suggest a concerning trend as to availability of nitazenes, particularly when considering reports of increased wholesale (as opposed to smaller retail level) drug purchases via cryptomarkets (7).

Some of the most common nitazenes identified on cryptomarkets (e.g., protonitazene, metonitazene, etodesnitazene, isotonitazene) have been identified through clinical and forensic data in Australia (9). Coupled with international evidence of increased availability and overdose from nitazenes (3,4), these findings reinforce the importance of strong data monitoring systems that enable timely, sensitive detection of harms.

¹ Of the 1751 listings, delivery information could not be extracted for 906 listings (51.7%). These were cross-filled with destination information using vendor data in other markets where they can be verified as unambiguous for their delivery to Australia (i.e. specified Australia, Oceania and/or worldwide) or otherwise, for all or most (>95%) of their listings where delivery information were available. This reduces the number with no delivery information to 180 listings (5.9%).

Collectively, the current evidence would also suggest value in increasing access to, and awareness of, key harm reduction strategies as a precautionary endeavour against rising harms. Key strategies cited include increasing uptake of take-home naloxone, as well as expansion of drug checking facilities with sufficiently sophisticated technology to detect these substances (9,10).

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Recommended Citation

Man N, Sadaphale V, Barratt MJ, Bruno R, Sutherland R, Peacock A. Availability of nitazenes for purchase in Australia and internationally via cryptomarkets. *Drug Trends Bulletin Series*. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney; 2024. Available from: <https://doi.org/10.26190/unsworks/30235>

Acknowledgements

We would like to acknowledge the following individuals for their contribution to the DNeT project: Anant Mathur, Max Pedersen, Rajat Katyal, Dr Qingyuan Linghu, Agata Chrzanowska, Dr Amanda Roxburgh, Joe van

Buskirk, A/Prof Lucinda Burns, A/Prof Timothy Dobbins, Dr Courtney Breen, Sundresan Naicker and Rosie Swanton.

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Data visualisations: <https://drugtrends.shinyapps.io/cryptomarkets>

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