

This is the peer reviewed version of the following article:

Caldicott, D., Bright, S., & Barratt, M. (2013). NBOMe—a very different kettle of fish. *Medical Journal of Australia*, 199(5), 322-323.

which has been published in final form at

<https://doi.org/10.5694/mja13.10926>

This article may be used for non-commercial purposes in accordance with The [Medical Journal of Australia's pre-print policy](#).

© 2013. This manuscript version is made available under the CC-BY-NC-ND 4.0 license <http://creativecommons.org/licenses/by-nc-nd/4.0/>

We are concerned that recent media reporting about a 17-year-old Sydney male who died following allegedly consuming 25B- or 25I-NBOMe might increase the incidence of NBOMe presentations at Emergency Departments. NBOMe was reported to be available online for as little as \$1.50 per tab <sup>1</sup>. The subsequent media interest has likely increased public awareness about the availability of the NBOMe series of drugs. Increased awareness of psychoactive substances through media reporting is associated with increased initial uptake of those drugs <sup>2</sup>. It is possible that the increased awareness of a cheap LSD-like drug will prompt some individuals to buy NBOMe tabs and sell them as LSD in order to make significant profits.

The NBOMe series are analogues of the 2C series of psychedelic phenethylamine drugs that include an N-methoxybenzyl (NBOMe) substituent that has significant effects on their pharmacological activity. NBOMe drugs have been characterised in *in vitro* receptor studies as remarkably potent agonists of the 5-HT<sub>2A</sub> and 5-HT<sub>2C</sub> receptors <sup>3</sup>, which may account for the powerful psychedelic effects at very low doses that have been reported by users <sup>4</sup>. Unlike LSD, however, the NBOMe series are significantly sympathomimetic and can lead to acute toxicity, in addition to the behavioural hazards associated with LSD use <sup>4</sup>. This problem is compounded by up to six 'effective' doses of NBOMe drugs being sold on a single tab. Our observations of online marketplaces indicate that NBOMe tabs are available for purchase in Australia containing 1200 mcg, yet only 200 to 1000 mcg may be considered an effective sublingual dose <sup>5</sup>.

Individuals presenting to emergency departments with acute NBOMe toxicity might experience cardiovascular complications, agitation, seizures, hyperthermia, metabolic acidosis, organ failure, and even death <sup>5</sup>. Hence, while the treatment of a presentation for LSD intoxication typically involves supportive care and rarely requires pharmacological intervention other than sedation, we would encourage medical and paramedical personnel involved in the management of psychotic patients, and presumed under the influence of illicit drugs, to entertain the diagnosis of an inadvertent NBOMe-type drugs overdose, mandating a higher level of care that might have otherwise been assumed. Appropriate treatment might include aggressive cooling, pharmacological intervention and other high-level resuscitative measures.

1. Ralston N, Davies L. Teen jumps to his death after \$1.50 drug hit. *Sydney Morning Herald* (Sydney) 2013; June 6. <http://www.smh.com.au/nsw/teen-jumps-to-his-death-after-150-drug-hit-20130606-2nrpe.html> (accessed July 2013).
2. Bright SJ, Bishop B, Kane R, et al. Kronic hysteria: exploring the intersection between Australian synthetic cannabis legislation, the media, and drug-related harm. *Int J Drug Policy* 2013; 24: 231-237.
3. Braden MR, Parrish JC, Naylor JC, et al. Molecular interaction of serotonin 5-HT<sub>2A</sub> receptor residues Phe339(6.51) and Phe340(6.52) with superpotent N-benzyl phenethylamine agonists. *Mol Pharmacol* 2006; 70: 1956-1964.
4. Hill SL, Doris T, Gurung S, et al. Severe clinical toxicity associated with analytically confirmed recreational use of 25I-NBOMe: case series. *Clin Toxicol* 2013; 51: 487-492.
5. Bluelight.ru. (2013). The Big and Dandy NBOMe-2C-C (25C-NBOMe) Thread. <http://www.bluelight.ru/vb/threads/518529> (accessed July 2013).

## Tables

Provide meaningful titles for each **table**.

Information in **tables** should be simplified as much as possible, keeping the number of columns to a minimum and the headings short.

Information in **tables** should not be duplicated in the text.

[add tables here]

### **Photographs, graphs and illustrations**

**Photographs, graphs and illustrations** may be inserted into this document for the purposes of submitting your article. If we decide to proceed with your article, you will need to provide separate high-quality versions of your photos and illustrations in appropriate file formats ([see Instructions to authors](#)) before your article can be accepted for publication.

[add tables here]