Letters

NBOMe — a very different kettle of fish . . .

To the Editor: We are concerned that recent media reports about a 17-year-old Sydney boy who died after allegedly consuming 25B- or 25I-NBOMe might lead to an increase in the incidence of NBOMe toxicity among patients presenting to emergency departments. NBOMe was reported to be available online for as little as $1.50 per tablet.[1] The subsequent media interest is likely to have increased public awareness of the availability of the NBOMe series of drugs; and increased awareness of psychoactive substances through media reporting is associated with their increased initial uptake.[2] It is possible that the increased awareness of this cheap LSD (lysergic acid diethylamide)-like drug will prompt some individuals to buy NBOMe tablets and sell them as LSD in order to make a significant profit.

The NBOMe series are analogues of the 2C series of psychedelic phenethylamine drugs that include an N-methoxybenzyl (hence, "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_{2A} and 5-HT_{2C} receptors,[3] which may account for the powerful psychedelic effects at very low doses that have been reported by users.[4] Unlike LSD, however, the NBOMe drugs have significant sympathomimetic effects and can lead to acute toxicity, in addition to the behavioural hazards associated with LSD use.[4] This problem is compounded by up to six "effective" doses of an NBOMe drug being sold in a single tablet. Our observations of online marketplaces indicate that NBOMe tablets are available for purchase in Australia containing 1200 μg, yet as little as 200–1000 μg may be considered an effective sublingual dose.[5]

The treatment of a patient presenting with LSD intoxication

typically involves supportive care and rarely requires pharmacological intervention other than sedation. Individuals presenting to emergency departments with acute NBOMe toxicity might experience cardiovascular complications, agitation, seizures, hyperthermia, metabolic acidosis, organ failure and death.[5] Therefore, we would encourage medical and paramedical personnel involved in managing patients presenting with symptoms of psychosis who are presumed to be under the influence of illicit drugs to consider the diagnosis of an inadvertent NBOMe-type drug overdose, which mandates a higher level of care than they might otherwise assume is needed. Appropriate treatment might include aggressive cooling, pharmacological intervention and other high-level resuscitative measures.

David G E Caldicott Emergency Physician[1]

Stephen J Bright Psychologist and Senior Alcohol and Other Drug Clinician[2]

Monica J Barratt Research Fellow[3]

1 Calvary Hospital, Canberra, ACT.

2 Peninsula Health, Melbourne, VIC.

3 National Drug Research Institute, Curtin University, Melbourne, VIC.

David.Caldicott@calvary-act.com.au

Competing interests: No relevant disclosures.

Online first 26/08/13

doi: 10.5694/mja13.10926

1 Ralston N, Davies L. Teen jumps to his death after $1.50 drug hit. *Sydney Morning Herald* 2013; Jun 6. http://www.smh.com.au/nsw/teen-jumps-to-his-death-after-150-drug-hit-20130606-2nrpe.html (accessed Jul 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, Nichols DE. Molecular interaction of serotonin 5-HT2A 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 (Phila)* 2013; 51: 487-492.

5 Bluelight [online drug discussion forum]. The big and dandy NBOMe-2C-C (25C-NBOMe) thread. http://www.bluelight.ru/vb/threads/518529 (accessed Jul 2013). ❑