

PILL TESTING: DOES THE SCIENCE SUPPORT THE HYPE?

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Introduction: Australia has a proud history of successful harm reduction measures in the drug and alcohol field and pill testing has become the next frontier for advocates. Following adoption in some overseas countries, a pill testing pilot was undertaken in the ACT in early 2018. The tragedy of several deaths at music festivals in the summer/autumn of 2018/19 has accelerated calls for its standard adoption. However, the science behind testing methods gives cause for caution.

Approach: Pill testing onsite at a festival enables an attendee to have a sample of drug analysed, with infra-red technology traditionally employed, despite serious limitations. In 2019, the Groovin the Moo festival in Canberra again offered pill testing, shifting to gas chromatography/mass spectrometry.

Key Findings: This paper compares the various technologies used for pill testing at festivals and demonstrates their limitations, which could lead to the spread of misinformation about the drugs being detected.

Discussions and Conclusions: The Global Drug Survey reported that 2016 was the "worst time to start taking MDMA in a generation" due to higher MDMA content in pills (1). However, concurrent with increased calls for pill testing has been paucity of regard for the toxicity of MDMA itself, the assumption often being that the danger lies in other psychoactive substances and/or impurities. In fact, convincing evidence exists of the functional deficit of the nigro-striatal system caused by pure MDMA (2).

Implications for Practice or Policy: Policies must take cognisance of the science: a sampled pill/tablet may lack uniformity, testing indicates presence of drug not quantity/dose, and expensive analytical equipment requires scientific expertise to interpret results.

Implications for Translational Research: The feasibility of event organisers maintaining a costly testing service with concomitant brief counselling needs realistic assessment. Legal issues must also be addressed, although these are generally not regarded as insurmountable (3).

1. Global Drug Survey (GDS) (2016), Key Findings from the GDS 2016 – data collected from Nov'15 – Jan'16, accessed 19th May 2019 at <https://www.globaldrugsurvey.com/past-findings/the-global-drug-survey-2016-findings/>.
2. Todd G, Noyes C, Flavel SC et al (2013), Illicit Stimulant Use Is Associated with Abnormal Substantia Nigra Morphology in Humans, PLOS One, 8 (2): e56438.
3. Eburn M (2019), Australian Emergency Law – Pill Testing, accessed 19th May 2019 at <https://emergencylaw.wordpress.com/2019/01/17/pill-testing/>, authored 17th January 2019.

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