

MONITORING FENTANYL CONTAMINATION OF HEROIN SUPPLIES IN MELBOURNE AND SYDNEY, THROUGH INSTANT STRIP TESTS AND VALIDATED FORENSIC LABORATORY URINALYSIS

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Background:

Given the high number of deaths in North America driven by fentanyl analogues, this study aimed to monitor unintentional fentanyl consumption in Australia through rapid drug screening tests administered in the country's two medically supervised injecting facilities.

Methods:

A total of 861 urine drug screens (UDS) paired with surveys were completed over nine waves of data collection at Sydney's Medically Supervised Injecting Centre (n=364, 2017-2020), and seven waves in Melbourne's Medically Supervised Injecting Room (n=513, 2018-2020). Urine samples were tested using BTNX Rapid Response™ fentanyl urine strip test with a detection level of 20 ng/mL norfentanyl, and cross-reactivity to numerous fentanyl analogues. Test strip positive and negative samples (i.e., controls) were further analysed using liquid chromatography coupled with tandem mass spectrometry.

Results:

Participants were demographically similar to the overall client base at the two sites (median age 43, 72% male) and had used heroin in the past two days. Two percent reported intentional use of fentanyl, mostly from patches containing fentanyl. Of the 861 rapid UDS conducted, 17 yielded positive results. Eight of these (all from Melbourne) were not explained by self-reported fentanyl use in the past three days, and we conducted confirmatory laboratory analysis on six of these samples. Four were deemed to be false positives and two were confirmed to contain fentanyl. This represents the first confirmation of unintended use of fentanyl type substances in this cohort.

Conclusion:

This study finds limited evidence of unintentional fentanyl use amongst people who regularly inject opioids in Australia. This study shows the feasibility and utility of simple, quick, onsite testing for fentanyl type substances for continual monitoring for the presence of unexpected fentanyl. The high false positive rate emphasises the need for additional corroboration of positive tests using more advanced analytical techniques.

Disclosure of Interest Statement:

In the past 5 years, SN has been an investigator on untied education grants from Indivior, unrelated to the current work. SN has provided training to health care professionals on identifying and treating

codeine dependence for which her institution has received honoraria from Indivior. TL & SN have been investigators on an untied education grant from Seqirus.