

No Fentanyl Analogs but Buprenorphine, Naloxone, and Marijuana Detected in Specimens from Suspected Users of Fentanyl in Vermont

Submitting Site: Aspenti Health (Burlington, Vermont)

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Background

Aspenti Health is a commercial drug testing laboratory whose headquarters and primary patient population are located in Vermont. Aspenti is focused on helping patients meet their recovery goals and works closely with their care providers to better serve their patients through patient-focused services.

Methods

Aspenti submitted 20 urine specimens collected between November 2017 and January 2018 that had a positive fentanyl screen but a negative confirmation test for fentanyl. These specimens did not confirm for fentanyl, suggesting that they may have contained fentanyl analogs that are not identified by the fentanyl confirmation test. Aspenti wanted to use the DOTS laboratory's ability to test for 21 fentanyl compounds and/or analogs to "alert the provider community as to what fentanyl forms are being used." Aspenti is "keenly interested in supporting this community with better insights into fentanyl and fentanyl analogs using scientifically accurate and precise information to combat this grave public health crisis." See *DOTS Bulletin*, Issue 1, for a detailed description of the DOTS pilot study methodology and limitations (<https://go.umd.edu/ndews-dots>).

Sample Characteristics

The 20 specimens came from Vermont patients between the ages of 26 and 57 years old, with one half younger than 34 years. A little more than half (55%) came from females.

DOTS Drug Test Results

Twelve specimens tested positive for fentanyl/norfentanyl even though fentanyl/norfentanyl was not detected by Aspenti's confirmation test. This difference is likely a result of the greater sensitivity of the DOTS laboratory's fentanyl test (limit of detection of 1.0 ng/mL vs. 5.0 ng/mL for the Aspenti confirmation test). Contrary to Aspenti's expectation, however, no fentanyl analogs were detected (see table on page 2). More than 90% tested positive for buprenorphine, 53% of which also contained naloxone, suggesting possible use of a medication containing both drugs. Marijuana and morphine were the next most commonly found drugs, each detected in 40% of the specimens. Only three specimens contained cocaine. Multiple substances were detected in all specimens; 60% tested positive for between five and ten substances.

Implications

According to Aspenti, "the large number of specimens containing buprenorphine is expected because buprenorphine is prescribed widely for opioid patients in Vermont." Aspenti's suspicion that many of the specimens that tested positive by their general screen for fentanyl actually contained fentanyl analogs was not supported by the DOTS drug test results. According to Aspenti, "we were surprised to learn that none of these cases demonstrated fentanyl analogs. While the small number of cases may have precluded identification, this sample had been selected so as to increase the chance of fentanyl analog identification. This raises an important question as to how ubiquitous fentanyl analogs are in our state." It is also possible that the DOTS laboratory may not be testing for the fentanyl analogs that are used by these patients. Aspenti believes that further clarification of these fentanyl results will not only have implications for its strategy to expand testing to include fentanyl analogs, but will also have important public health considerations for Vermont.

THE DRUG OUTBREAK TESTING SERVICE (DOTS) PILOT STUDY

DOTS tests up to 20 urine specimens for 240 drugs, without cost to the submitting site, to help identify emerging drugs for epidemiologic purposes.

To become a DOTS site or for more information:
ndewsdots@umd.edu

DOTS Bulletins are available at: <https://go.umd.edu/ndews-dots>

