Fentanyl Analogs Found in Samples from the Local Rhode Island Drug Supply

testRI is a two-year study to find out what is in the drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our community. We are testing used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations. Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS).

Data from all samples tested in the study can be found on preventoverdoseri.org/local-drug-supply

*Samples we have collected and tested only represent a small part of the local drug supply in Rhode Island and may not represent the broader drug supply in the state. Samples are also not being tested in relation to overdose so outcomes from use, like overdose, are unknown.

Fentanyl Analogs:

**Background:**
Multiple fentanyl analogs have been detected via advanced toxicity testing (LC-QTOF-MS) in donated drug samples in Rhode Island sold as fentanyl.

**Fentanyl analogs** are drugs that are similar in chemical structure to fentanyl. Fentanyl analogs that have been detected on testing include:

- Acetylfentanyl
- Acyrlfentanyl
- Para-fluorofentanyl
- Methoxyacetylffentanyl

**Why does this matter?**
Narcan (naloxone) will reverse the effects of fentanyl and fentanyl analogs, such as para-fluorofentanyl.

Novel synthetic drugs such as fentanyl analogs introduce volatility into the drug supply. It is important to recognize this uncertainty and take appropriate precautions. Consider using in a safe environment where others can check on you. Use small test doses.

Although non-human studies suggest para-fluorofentanyl is less potent than fentanyl, risk is high because the therapeutic index is smaller. This means there is a narrower range between the dose to get effects and the dose that can cause overdose.

**Health Effects:**
Fentanyl analogs in overdose can cause sedation and decreased or stopped breathing in the same way as fentanyl.

Estimates of how potent fentanyl analogs are vary. This uncertainty is because information on the potency of illicitly-manufactured analogs is based on limited data and often has not been evaluated in humans.

Para-fluorofentanyl was the most common fentanyl analog detected in donated drug samples tested May 2022.

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