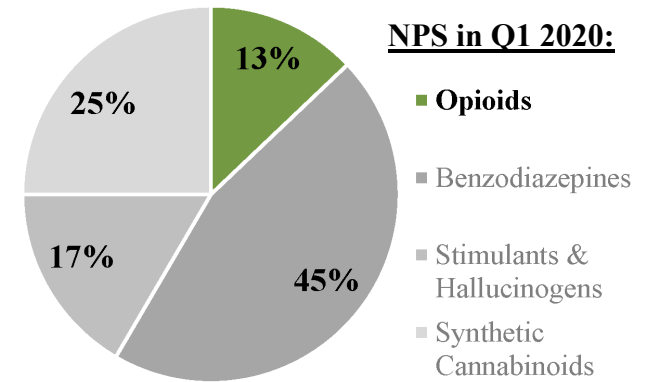


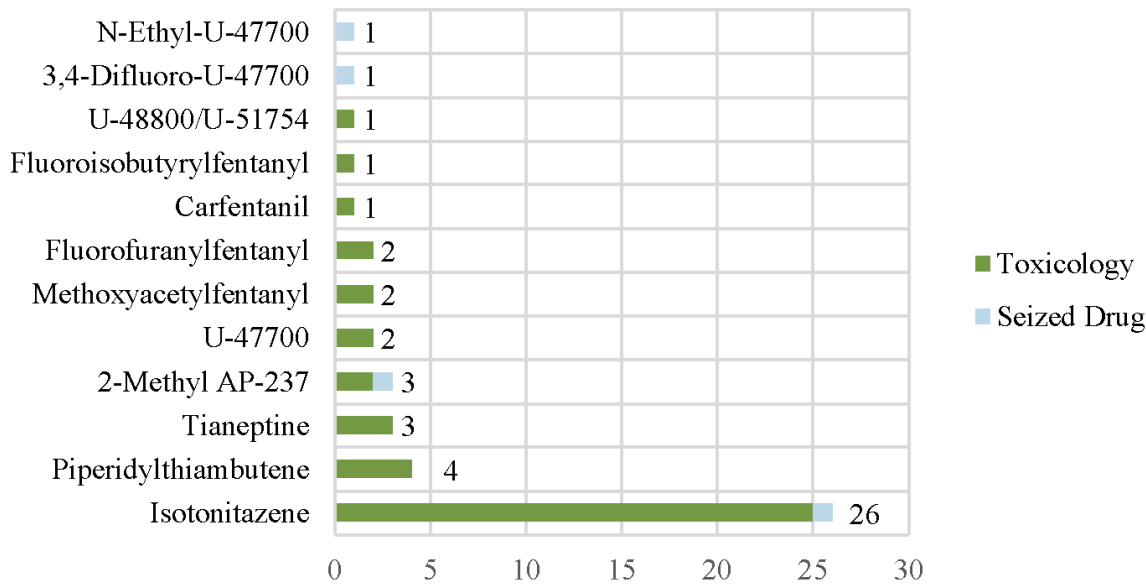
Purpose: This report provides up-to-date information regarding the status of NPS opioid prevalence and positivity within the United States.

Overview: Novel psychoactive substances (NPS), including NPS opioids, continue to pose great challenges for forensic scientists, clinicians, and public health and safety personnel. NPS opioids have been implicated in an increasing number of emergency room admissions, death investigations, and mass intoxication events. Maintaining a current scope of analysis can be challenging, often requiring comprehensive analytical methodologies and reference materials for identifications.

Objective: This project employs novel approaches for the analysis of biological samples and seized drug materials using comprehensive non-targeted data acquisition by gas chromatography mass spectrometry (GC-MS) and liquid chromatography quadrupole time-of-flight mass spectrometry (LC-QTOF-MS). The scope of analysis contains more than 800 drugs, including a vast majority of NPS and their metabolites. This model allows for real-time identification of novel opioids and further data analysis of important trends. This project was conducted in collaboration with the toxicology and criminalistics laboratories of NMS Labs. Forensic case types linked to these results include illicit drug investigations, medicolegal death investigations, and/or driving under the influence of drugs (DUID) investigations. The results in this report represent the total number of NPS identifications at CFSRE during this quarter, including those from sample-mining, data-mining, and/or esoteric testing.



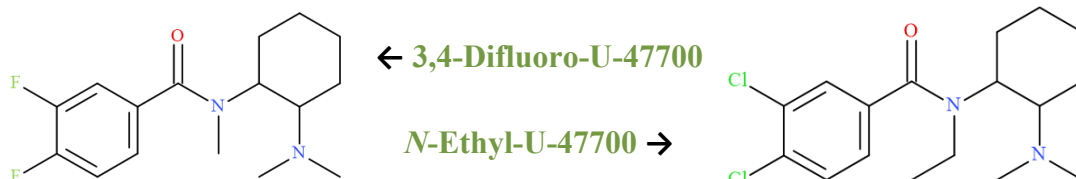
NPS Opioid Positivity



NPS Opioid Combinations

Combination	Frequency
Isotonitazene + Flualprazolam	13
Isotonitazene + Etizolam	10
Isotonitazene + Fentanyl	8
Isotonitazene + Piperidylthiambutene	4

New Discoveries in Q1 2020



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