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Background: Stimulant abuse in the US is reportedly rising yet abuse in other countries is not well studied. This study provides abuse rate data for two stimulants over a 5 year period in Italy, United States (US) and Northwest Germany.

Methods: Human exposures to methylphenidate and amfetamines from 2007–2011 were obtained from Milan and Göttingen PCs. US data were obtained from PCs participating in the RADARS® System. PCs in all 3 countries manage calls from healthcare providers as well as the public. Milan PC handles 65–70% of all calls in Italy. Rates are expressed as number of exposures per 100,000 population separately for intentional and unintentional exposures. Intentional exposures are those with a reason of suicide, abuse, misuse, and unknown intentional. Unintentional exposures include unintentional general, unsupervised ingestions and therapeutic errors.

Results (Table 1): In Italy, trends for amfetamines and methylphenidate for both intentional and unintentional exposures showed no clear trends over the 5 year time period. Since 2009–2010 amfetamine drugs were gradually retired as prescribed drugs in Italy. In Northwest Germany, amfetamine exposure trends were variable with no change in the rates of intentional or unintentional exposures from 2007 to 2011. For Methylphenidate intentional exposures rates for 2011 were 32% increased from 2007 levels and unintentional exposures were 58% increased from 2007 levels. In the US increasing rates are seen for both intentional and unintentional amfetamine and methylphenidate rates.

Conclusions: Amfetamine exposures reported to PCs appear to be on the rise only in US, not Italy or Northwest Germany. However, intentional and unintentional methylphenidate exposures reported to PCs appear to be on the rise in US and Northwest Germany. Stimulant abuse does not appear to be a pressing issue in Italy based upon calls to PCs. Transatlantic data collection is possible with comparably few resources.

Keywords: Poison center, Stimulant, Prescription drug abuse

144. Synthetic cannabinoid laced brownies

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Background: Synthetic cannabinoids (SC) are emerging designer drugs of abuse. Most reports on the health effects of these drugs are case reports. Marijuana has classically been used via many routes of exposure including oral, such as in brownies. We report on eleven symptomatic patients who unknowingly ingested brownies laced with analytically confirmed SC.

Case series: The toxicology service was asked to see eleven workers from a unit at a major hospital who were brought to the emergency department (ED) following ingestion of brownies brought to work by one of their colleagues. The brownies were allegedly doctored by the son of the lady that brought in the brownies. The brownies were eaten by staff during their lunch break.

All 11 employees who ate the brownies had been well until symptoms began 30–60 minutes following the ingestion and

arrived to the ED within 2 hours of symptom onset. There were 5 males and 6 females; age range 20–57 years. Neuropsychiatric and cardiovascular symptoms predominated: memory impairment (91%, 10/11), inappropriate giggling (36%, 4/11). All the patients had lightheadedness, perioral and facial numbness and tingling sensation, dry mouth, difficulty focusing/blurring of vision, and sluggishness. One patient had 5 mm pupils; all the others had normal pupils. No patient had depressed consciousness. Two patients had heart rates > 100 and 4 of 11 (36%) had BP > 140/90. One patient had chest pain. None were short of breath and there were no gastrointestinal symptoms. All the symptoms were completely resolved four hours following their onset except two patients had ongoing weakness and fatigue.

All patients had negative urine drug screens, ethanol, acetaminophen and salicylate concentrations; as well as normal EKGs and basic metabolic panels. All the patients were discharged from the ED in stable condition within ten hours of the exposure.

The remaining brownie was analyzed by Department of Public Safety laboratory. Preliminary analysis showed that it contained the synthetic cannabinoid AM 2201.

Discussions: To our knowledge, this is the first case series of symptomatic ingestion of brownies laced with SC. These patients were unaware of the contents of the brownies but they all shared common clinical features, mostly neuropsychiatric and cardiovascular symptoms. These cases reflect that oral SCs' can cause adverse effects and that they do not degrade with cooking in an oven.

Conclusions: Oral exposure of eleven patients to brownies laced with analytically confirmed SC resulted in neuropsychiatric and cardiovascular symptoms. This series reflects that like Marijuana, oral exposures to SC can lead to symptoms.

Keywords: Synthetic cannabinoid, Brownies, Neuropsychiatric symptoms

145. Fatalities from acetaminophen combination products reported to poison centers

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Background: Supratherapeutic dosing or intentional overdose of acetaminophen (APAP), single or combination products, can cause hepatotoxicity or death. The objectives of the study are to determine the relative contribution of APAP compared to other active drugs in fatalities involving APAP combination products and related risk factors.

Methods: A 10-year retrospective analysis of NPDS fatality abstracts of only undoubtedly responsible and probably responsible cases was conducted. Four raters independently examined the abstracts for the cause of fatality as most likely due to APAP, the other active drugs, or both.

Results: Interrater reliability was substantial with overall Kappa of 0.74. Of the 339 cases, 59.9% involved APAP-opioid, 30.0% APAP-antihistamine, 3.6% cough-and-cold/headache/other pain relief products, and 6.5% more than one APAP combination product. The raters determined that the overall fatality was caused by