

ABSTRACTS



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and synthetic cannabinoid exposures over a 5-year period and found similarities: the age group with the heaviest use was 15–21 years, male > female, and clinical effects and outcomes were similar. As more states adopt medical and recreational marijuana, these trends will likely change.

### 170. Drowning in bath salts: MDPV in northern Germany

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**Objective:** 3,4-Methylenedioxypropylvalerone (MDPV) is a substituted cathinone belonging to the class of  $\alpha$ -pyrrolidinophenones that have become increasingly popular as psychostimulants in recent years. MDPV is sold via the Internet under different slang names such as bath salts, flex and others.

**Methods:** For the period 2008–2016 all enquiries regarding hospitalisations due to intoxication with MDPV were identified in the GIZ-Nord database. Mono-intoxications, co-ingestants, symptoms and severity, annual distribution and ToxIndex were analysed for the cases retrieved.

**Results:** The MDPV epidemic in northern Germany began in 2008, peaked in 2014 and has been on the decline since. During this period GIZ-Nord received 33 enquiries regarding hospitalised patients intoxicated with this substance. Of these 22 were mono-intoxications and 11 combined intoxications. All patients were male with an average age of 32 years. The leading symptoms were psychomotor agitation (42%), somnolence or coma (24%), alternating somnolence with agitation (9%) and hallucinations (12%). One patient developed serotonin syndrome and another had to be resuscitated because of ventricular fibrillation. Both were mono-intoxications and the patients survived. According to the Poisoning Severity Score 33% had minor, 49% moderate and 12% severe symptoms (6% were not well documented). No fatalities occurred. The ToxIndex is defined as the sum of all cases classified as lethal, severe or moderate related to the number of all exposure cases. This index of 60% in this analysis is very high and indicates the hazardous nature of MDPV.

**Conclusion:** After a century of a more or less consistent spectrum of drugs, Europe now faces a new drug problem, called new psychoactive substances (NPS). Synthetic cathinones play an increasing role among these mind-altering substances. The example of MDPV shows the unpredictable danger of these new substances. Although the figures of MDPV have declined, dozens of similar substances are ready to take over.

### 171. Gamma-hydroxybutyrate intoxication in Italy related to a pharmaceutical preparation

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**Objective:** In Italy, gamma-hydroxybutyrate (GHB) is used to control withdrawal symptoms in the treatment of alcohol

dependence. It is available in 10 or 240 mL bottle of 17.5% solution. This study evaluates a case series of patients with voluntary intoxication by GHB as the pharmaceutical formulation referred to Italian Emergency Departments (EDs) and our Poison Control Centre, in order to identify the characteristics of this intoxication in our country.

**Methods:** A retrospective analysis of all cases of pharmaceutical-GHB intoxication referred to our Poison Control Center over a nine-year period (2007–2015). All cases of admission to EDs for a confirmed and voluntary GHB poisoning were evaluated, while accidental intoxications (e.g., therapeutic error) were excluded. Characteristics of the poisoned patients and clinical features were evaluated.

**Results:** Overall 466 of the 539 cases of pharmaceutical-GHB intoxication met the inclusion criteria (M/F ratio 1.39), aged from 16 to 78 years (median age 39.45 ± 9 years). The average dose taken (known in 318/466 patients) was 76.62 mL (13.4 g, range 1.75–49 g); 26.1% of the patients were admitted to the EDs during the weekend. In total 41% of patients ( $n = 191$ ) ingested only pharmaceutical-GHB, while other agents were co-ingested in 275 cases (59%). Among these, the main co-ingestants were sedative-hypnotics (30%), antidepressants (19%), ethanol (26%), methadone (5%), substances of abuse (8%) and other drugs for the treatment of alcohol abuse (7.6%). Severe neurological impairment (Glasgow Coma Score <9) was present in 56.2% of all the cases (276/466), and in 36.3% of the pharmaceutical-GHB pure intoxications (121/191). Twenty-one patients (4.5%) needed endotracheal intubation and supported ventilation (4.1% in pure intoxication and 4.7% in mixed intoxications).

**Conclusion:** Compared to the previously published studies on GHB intoxication, this case series of pharmaceutical-GHB intoxication shows some peculiarities such as (i) higher average age, (ii) high percentage of co-ingestion of medications and ethanol, (iii) lower percentage of excitatory symptoms and (iv) a homogeneous distribution of the cases during the week. The use of GHB in Italy for the treatment of alcoholism results in an easier availability for patients at risk of abuse and could explain the peculiarities of our case series.

### 172. Increase in Emergency Department presentations in Europe related to the use of synthetic cannabinoid receptor agonists

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**Objective:** There is increasing concern about the availability, use and acute harms related to the use of synthetic cannabinoid receptor agonists (SCRA) in Europe. This study aimed to determine whether prevalence of SCRA-related acute harm in Europe has changed.

**Methods:** The Euro-DEN Plus project collects longitudinal data from 16 sentinel centres in 10 European countries on Emergency Department (ED) presentations with acute recreational drug toxicity. The Euro-DEN database was searched for presentations involving the use of SCRA between October 2013 and September 2015. The following data were extracted from