OP - 08

Acute recreational drug toxicity emergency department presentations in Europe: A comparison of the drugs involved in different age groups

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Objective: There is limited data available internationally on the drug(s) involved in presentations to the Emergency Department with acute recreational drug/new psychoactive substance (NPS) toxicity. The objective of this study was to determine the drug(s) involved in a large European cohort and whether there were differences in young adults.

Methods: The Euro-DEN Plus database was retrospectively interrogated to identify presentations October 2013-December 2015; data was extracted on demographics and the drug(s) self-reported to be used in each presentation. Comparison of the ranking of the top twenty classical recreational drugs/NPS was undertaken for those aged 24 years and below (Group-I) compared to those 25 years or above (Group-II).

Results: There were 12,048 patient presentations to the Euro-DEN Plus network of whom 3032 (25.1%) were in Group-I and 8888 (73.8%) were in Group-II (age not recorded in 128 (1.1%)). 2096 (69.1%) of Group-I and 6966 (78.3%) of group-II were males ($p<0.001$). There were 4474 drugs involved in Group-I and 14007 in Group-II. The top twenty reported drugs in the two groups are shown in the table. Of the top twenty drugs, 392 (8.7%) were prescription drugs, 3068 (68.5%) were classical recreational drugs and 379 (8.4%) were NPS in Group-I while 2784 (19.8%) were prescription drugs, 8606 (61.3%) were classical recreational drugs and 568 (4.0%) were NPS in Group-II.

Conclusion: The drugs involved in acute drug toxicity presentations to the ED in Europe differ in younger and older adults. Heroin and cocaine were the most common drugs involved in older adults while Cannabis and MDMA were more common in younger adults. NPS were twice as commonly involved in the younger group whilst prescription medicines were involved more commonly in the older group. Knowledge of the drugs implicated in acute toxicity presentations is important in informing appropriate targeting of harm reduction and other public health initiatives.

Group I (≤24 years; n=4474)				Group II (≥25 years; n=14007)			
Drug name		Number	Percent	Drug name		Number	Percent
1	Cannabis	833	18.6	1	Heroin	2530	18.0
2	MDMA	542	12.1	2	Cocaine	1501	10.7
3	Cocaine	508	11.3	3	GHB/GBL	1337	9.5
4	Amphetamines	332	7.4	4	Cannabis	1082	7.7
5	GHB/GBL	300	6.7	5	Amphetamines	1023	7.3
6	Heroin	276	6.1	6	Clonazepam	577	4.1
7	NPS/Legal high (uk)	171	3.8	7	Benzodiazepines	504	3.5
8	Mephedrone	143	3.1	8	Methadone	481	3.4
9	Unknown	135	3.0	9	Mephedrone	452	3.2
10	Clonazepam	103	2.3	10	MDMA	441	3.1
11	LSD	93	2.0	11	Diazepam	392	2.7
12	Ketamine	85	1.8	12	Methamphetamines	343	2.4
13	Methamphetamine	75	1.6	13	Unknown	331	2.3
14	Benzodiazepine	66	1.4	14	Opioids (uk)	284	2.0
14	Diazepam	66	1.4	15	Crack	229	1.6
15	Synthetic cannabinoid	65	1.4	16	Alprazolam	219	1.5
16	Alprazolam	45	1.0	17	Zopiclone	165	1.1
17	Zopiclone	32	0.7	18	Buprenorphine	162	1.1
18	Methadone	30	0.6	19	Ketamine	120	0.8
19	Dextromethorphan	25	0.5	20	NPS/Legal high (uk)	116	0.8
19	Opoids (uk)	25	0.5	-	-	-	-
20	Crack	24	0.5				

MDMA – Methylenedioxymethamphetamine; GHB/GBL – Gamma-hydroxybutyrate/Gamma-butyrolactone; LSD – Lysergic acid diethylamide; NPS New(or)Novel Psychoactive substances; uk – Unknown