

Insights into acute recreational drug and new psychoactive substance toxicity – an update from the Euro-DEN Plus Project

15:00 to 16:30 Q Central square 2 (C2) 2 Paul Dargan



Insights into acute recreational drug and NPS toxicity: an update from the Euro-DEN Plus Project **Professor Paul Dargan Professor of Clinical Toxicology and Consultant Physician** Guy's and St Thomas' NHS Foundation Trust and King's College London London, UK





Declaration of Interest

- **Euro-DEN Research Funding**
- 2013 2015:
 - Financial support from the European Commission DPIP Programme
- 2016 date:
 - Financial support from the EMCDDA





Euro-DEN: The European Drug Emergencies Network

- Limited systematic data on acute drug toxicity
 - Acute drug toxicity is not an EMCDDA key indicator
 - Key public health gap in the understanding of the public health impact of drug use
- Euro-DEN: formed in 2013

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- Sentinel centre model: Emergency Departments (EDs) with clinical toxicology expertise
- Systematic and structured data on acute drug / NPS toxicity presentations to European EDs

COMMENTARY

Clinical Toxicology (2014), 52, 239-241

The European Drug Emergencies Network (Euro-DEN)

D. M. WOOD,^{1,2} F. HEYERDAHL,³ C. B. YATES,⁴ A. M. DINES,¹ I. GIRAUDON,⁵ K. E. HOVDA,³ and P. I. DARGAN^{1,2}







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Euro-DEN: The European Drug Emergencies Network

- Data collection on <u>all ED presentations</u> with <u>acute recreational drug toxicity</u>
 - Clinical features consistent with acute drug / NPS toxicity or acute toxicity related to prescription medicine misuse
- Euro-DEN minimum dataset (54 parameters) collected from <u>clinical notes</u>
 - Entered onto Excel spreadsheet and data returned to London for collation
 - In process of upgrading to REDCap
- Drug(s) involved: patient self-report with clinical interpretation
 - Drug screening data (~20% cases), only when undertaken as part of routine clinical care



COMMENTARY

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Euro-DEN Plus

Continued expansion of the network
 – 29 active sentinel centres, 24 countries

- Data on ~ 8,300 presentations per year,
 > 68,000 in total
- Pilot data collection in European
 Neighbourhood and Pre-Accession countries: EU4MD/IPA7 projects

Drugs beyond EU borders: emerging trends and preparedness



King's College

LONDO

European Monitoring Centre for Drugs and Drug Addiction





Guy's and St Thomas'

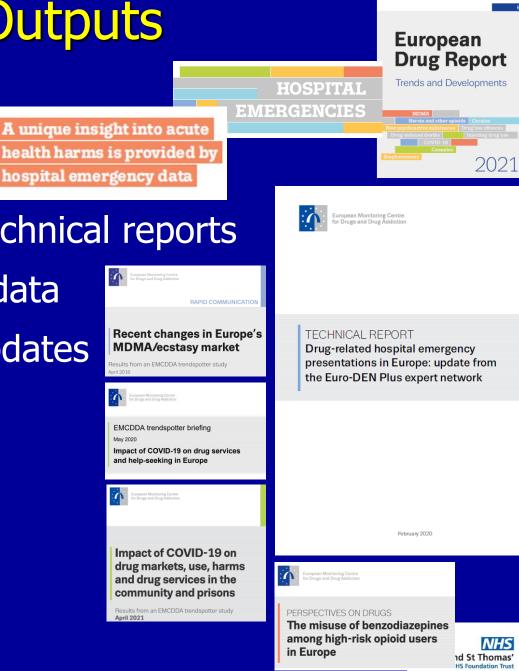
Euro-DEN Plus Outputs

European Policy and Monitoring:

- European Drug Report since 2015
- EMCDDA outputs e.g. trendspotters, technical reports
- EMCDDA website open access for key data
 - Interactive maps, 6 monthly data updates
 - Will be live in next few weeks

Academic:

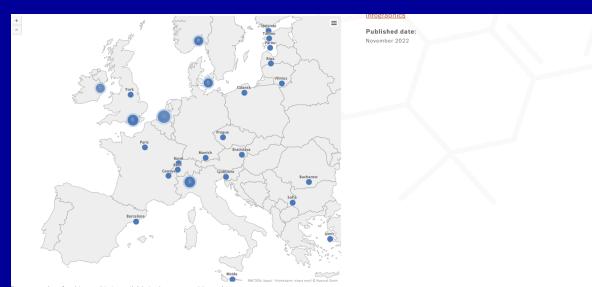
- 23 peer-reviewed papers 2013 to date





Euro-DEN Plus: EMCDDA Website Interactive Maps Location and Information on Sentinel Centres





he source data for this graphic is available in the <u>source table</u> on this page

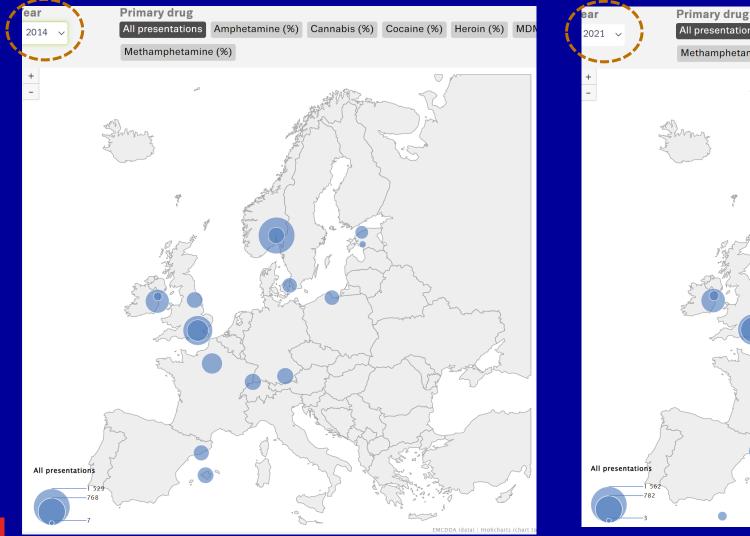
Country	City	Coordinates	Centre	Type of service	Catchment area	Type of people using drugs	Number of beds	Estimates population served (n)	Emergency department and referral	Other comment
Belgium	Antwerp	51.2,4.4	ZNA Stuivenberg	ED in general hospital	Central and northern. Antwerp Metropolitan Area 40 km ²	Urban ED. With both long-term drug users and recreational use	250	500000	Patients managed by ED. With referral to ICU, internal medicine or psychiatry as required.	Part of Ziekenhuis Netwerk Antwerpen (ZNA), a 2500 bed hospital on 10 sites in Antwerp Metropolitan Area
Belgium	Ghent	51.1,3.7	Ghent University Hospital	ED in university hospital	City of Ghent	Located in city with very large student population (63 000	1000	200,000	All poisonings are treated by the emergency	No dedicated toxicology department,

The source data for this graphic is available in the <u>source table</u> on this page.



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Euro-DEN Plus: EMCDDA Website Interactive Maps Number of presentations and drugs involved

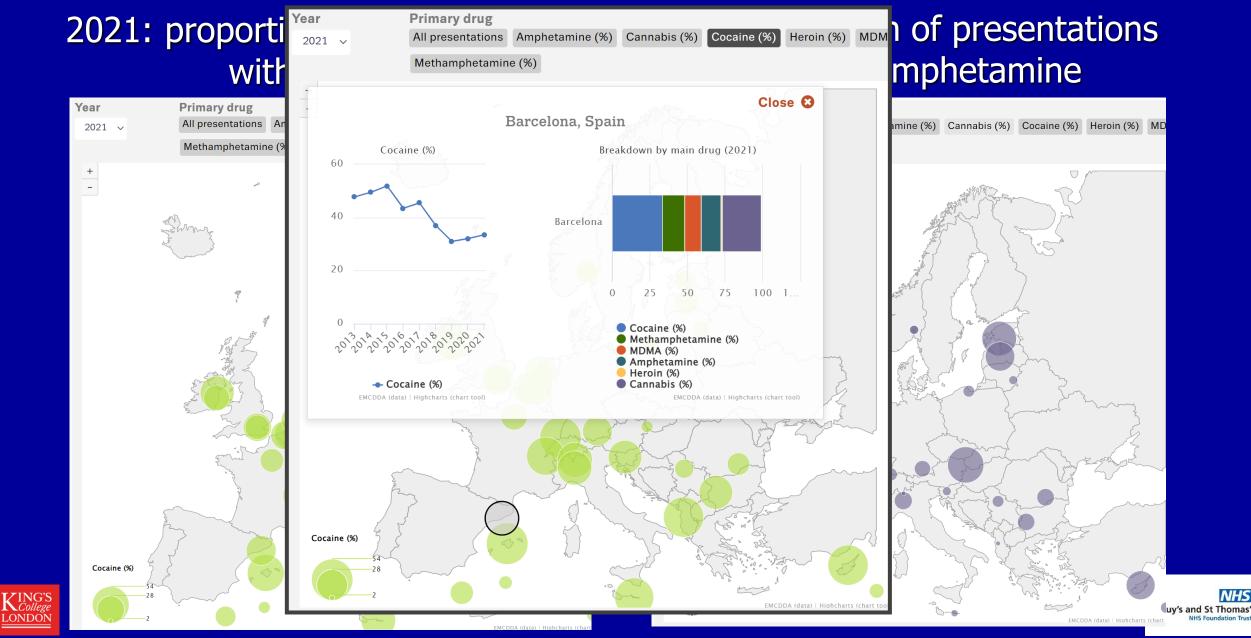




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Euro-DEN Plus: EMCDDA Website Interactive Maps



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Childrent Restricting (2014), 82, 1005-1017 information (2014), 82, 1005-1017 Childrent Restriction (2014), 82, 1005-1017 information (2014), 82, 1005-1017 RESEARCH ARTICLE Current European data collection on emergency department presentations with acute recreational drug toxicity: Gaps and national variations PRINTIOF HEYERDARL, 'KNUT ERIK HOVDA,' ISABELLE GIRAUDON,' CHRISTOPHER VATES,' ALISON M. DINES,' ROUMEN SEDEROV,' DAVID M. WOOD,' and PAUL L DARGAN'S	period (2014–2019) stratified by sex Òscar Miró ^a , Guillermo Burillo-Putze ^{b,} , Yasmin Schmid ^o , Emilio Salgado ^a , Matthias E. Liechti ^o , Alison M. Dines ^d , Isabelle Giraudon ^e , Fridtjof Heyerdahl ^{f,g} , Knut Erik Hovda ^h , Odd Martin Vallersne ^{i,j} , Florian Eyer ^k , David M. Wood ^{d,j} , Christopher Yates ^m , Paul I. Dargan ^{d,j} and Miguel Galicia ^a ; on behalf of the European Journal of Emergency Medicine Doi: 10.1111/be14408 Brit Jnl Clinical Pharma. 2021;87:1668–1675.	Training Letters 134 (2019) 37-43 Contents lists available at ScienceDirect Toxicology Letters Letters Journal homepage: www.elsevier.com/ocata/toxiet Clinical relevance of ethanol coingestion in patients with GHB/GBL intoxication Miguel Galicia**, Paul J. Dargan ¹⁶ , Allson M. Dines ¹⁹ , Christopher Yates ⁴ , Fridijof Heyerdahl ⁴⁷ , Socar Miro ⁵⁴⁸ GINAL Emergencias 2018;30:385- Imagencias atendidas por drogas	European emer between powd Òscar Miró ^{a,b} , Paul I. Knut Erik Hovda ⁷ , Isa	Clinical features and management of patients presenting to the second s	
Drugs Issue oxis 3rd primit. 1466-3370 (primit. 1466-3370 (pri	 <u>23 Peer-Reviewed Papers</u> Methodology, Coding 	<u>2013-2022</u> :		Presentations to the emergency department with non-medical use of benzodiazepines and Z-drugs: profiling and relation to sales data C. Lyphout ¹² OC.Yates ³ - Z.R. Margoln ⁴ - P. L. Dangan ¹⁴ - A. M. Dines ¹ - F. Heyerdahl ⁴ - K. E. Hovda ⁴ - L. Giraudon ⁷ - B. Bucher-Bartelson ⁴ - J. L. Green ⁴⁴ - Euro-DEN Research Group - D. M. Wood ¹³ Observational Study Acute recreational drug toxicity Comparison of self-reports and results of immunoassay and additional analytical methods in a multicenter	
Webrases et al. BMC Psychiatry. (2016) 16:293 DOI 10.1186/112886.016-1002.7 BMC Psych RESEARCH ARTICLE Open A Psychosis associated with acute recreational drug toxicity: a European case series Odd Martin Vallersnes ^{1,2*} , Alison M. Dines ³ , David M. Wood ¹⁴ , Christopher Yates ³ , Fridtjof Heyerdahl ⁶ , Knut Erik Hovda ⁶ , Isabelle Giraudon ⁷ , Euro-DEN Research Group and Paul L Dargan ³⁴	 Self-report vs Toxicolog Demographics Case series and drug c 			European case series European case series European case series European case series European Case (MD ²⁶ , Christopher Yales, MD ² , Alson M. Dires, MA ² , Paul J. Dargan, MD ²⁶ , European 2005, MD ²⁶ , Christopher Yales, MD ² , Alson M. Dires, MA ² , Paul J. Dargan, MD ²⁶ , European 2005, MD ²⁶ , Christopher Yales, MD ² , Alson M. Dires, MA ² , Paul J. Dargan, MD ²⁶ , European 2005, MD ²⁶ , MD ²⁶ , European 2005, MD ²⁶ , MD ²	
Journal of Medical Toxicology (2019) 15:112-120 http://doi.org/10.1007/13181-018-0887-z ORIGINAL ARTICLE Poor Identification of Emergency Department Acute Recreational Drug Toxicity Presentations Using Routine Hospital Coding Systems: the Experience in Denmark, Switzerland and the UK David M. Wood ¹² - Luke De La Rue ¹ - Ali A. Hosin ³ - Gesche Jurgens ⁴ - Evangelia Liakoni ^{5,6} - Fritdjof Hey Knut Erik Hovda ⁷ - Alison Dines ¹ - Isabelle Giraudon ⁶ - Matthias E. Liechtl ^{5,6} - Paul I. Dargan ^{1,2}	 GHB, MDMA, cocair Ethanol as co-inges Benzodiazepines / p 		European Journal of Emergency Medicine 2021, 28:144–146 Impact of pregabalin co-use in patients presenting with acute heroin toxicity to the European Drug Emergencies Network Plus project Craig Leaper ^{ab} , Alison M. Dines ^b , Paul I. Dargan ^{bc} , Chris Yates ^d , Knut Erik Hovda ^c , Fridtjof Heyerdahl ^{fd} , Isabelle Giraudon ^h , Euro-DEN Plus Research group and David M. Wood ^{bc} ,		
Contents luiss available at ScienceDirect Intervention PLNEVUER Durnal homepage: www.alsevier.com/locate/toxefet Intoxication by gamma hydroxybutyrate and related analogues: Clinical characteristics and comparison between pure intoxication and that combined with other substances of abuse Over Mir6 ⁴⁺¹ , Miguel Galicia ⁶⁺⁴ , Panl Dargan ⁴⁺ , Alison M. Dine ²⁺ , Isabelle Gimudord ⁴ , Fridijof Heyendahl ⁺ , Knut E. Hovda ⁺ , Christopher Yates ⁻ , David M. Wood ⁴⁺ , Evangelia Liakon ¹⁺²⁺ , Adrian Monghy ⁺ , Christopher Lee ¹ , Patrick O'Donohoe ¹ , Jack Sein Anand ⁴⁺⁺ , Jordi Puguriguer ² , Catalina Home ²⁺ , Odd Martin Valersne ⁴⁺¹ , Pre Svere Persert ¹ , Luice Chevillard ⁴ , Bruno Mégarbane ¹ , Rido Pansma ³ , W. Stephen Waring ⁺ , Kristina Pöld ⁺ , Christian Rabe ⁴ , Piort Macle Subaba ¹⁺	 Clinical features Psychosis, seizures, Ctv MDM-related presentations to the emergency departments of the European Drug Emergencies Network plus (Euro-DEN Plus) over the four-year period 2014-2017 Noberta Noseda[®] © Yasmin Schmid⁶, Irene Scholz^{Cd}, Evangelia Liakon^{Cd}, Mathias E. Liecht¹⁹, Paul I. Dargan^{ed}, David Mosed³, ¹ Otsmin Schmid⁶, Irene Scholz^{Cd}, ¹ Evangelia Liakon^{Cd}, ⁴ Mathias E. Liecht¹⁹, Paul I. Dargan^{ed}, David Mosed³, ¹ Otsmin Schmid⁶, Irene Scholz^{Cd}, ¹ Evangelia Liakon^{Cd}, ⁴ Mathias E. Liecht¹⁹, Paul I. Dargan^{ed}, David Alessandro Ceschi^{24,10}; on behalf of the Euro-DEN Research Group 	Novel psychoactive substances-related presentations to the emerge departments of the European drug emergencies network plus (European drug emergencies network emergen	ro-DEN plus) yer ^c (0), r Yates ⁱ (0),	PERSEARCH ARTICLE PROS ONCE Analysis related to acute recreational drug toxicity—A Euro-DEN study Mojciech Waldmang ^{1,2} , Piotr M. Kabata ⁰ , Alison M. Dines ³ , David M. Wood ^{1,4} , Christopher Yates ⁵ , Pridipf Heyerahl ⁶ , Knut Erik Hovda ⁶ , Isabelle Giraudon ⁷ , Euro-Den Research Group ⁹ , Paul I. Dargan ^{2,4} , Jacek Sein Anand ⁶ , ¹² ¹³ Poprimetri O Clinical Toxicology, Medical Hukersity of Gdansk, Oblank, Poland, 2 Pomeranian Centre for Stocology, Gdansk, Poland, 3 Clinical Toxicology, Giry and M. Molog ^{1,4} , Stocology, Gdansk, Poland, 3 Clinical Toxicology, Giry and M. Molog ^{1,4} , Stocology, Gdansk, Poland, 3 Clinical Toxicology, Giry and M. Mologe, Spain de Malloces, Spain, 6 Mallor Monton, United Kingdow, 4 Faculty of Lie Sciences and Medicine, King's College Lordon, Loudon, United Kingdow, 4 Faculty of Lie Sciences, Palma de Malloces, Spain, 6 Mallor Mology, Jacob, Newy, 7 Europaan Montoring Centre for Drugs and Drug Addiction (EMCDDA), Liebon, Portuga PLOS ONE [https://doi.org/10.1371/journal.pone.0246207	





Oral presentation

1. New Psychoactive Substance Presentations to the Euro-DEN Plus Network

15:00 to 16:30 Q Central square 2 (C2) & Benjamin Crulli

Oral presentation

2. The clinical impact of ethanol co-use in patients with acute drug toxicity involving the use of central nervous system depressant recreational drugs

15:00 to 16:30 Q Central square 2 (C2) & Eva-Carina Heier

Oral presentation

3. Variation in the drugs involved in acute drug toxicity presentations based on age and sex within the Euro-DEN Plus dataset

15:00 to 16:30 🛛 🗘 Central square 2 (C2) 🔹 Òscar Miró

Oral presentation

4. Deaths among acute drug toxicity presentations to the Euro-DEN Plus Network, 2014-2020

15:00 to 16:30 Q Central square 2 (C2) & Isabelle Giraudon



