

Drug Related Deaths (2010 – 2011)

Toxicological Results vs Causes of Deaths

Mário João Dias

DRD Annual Expert Meeting

12-13 November 2012

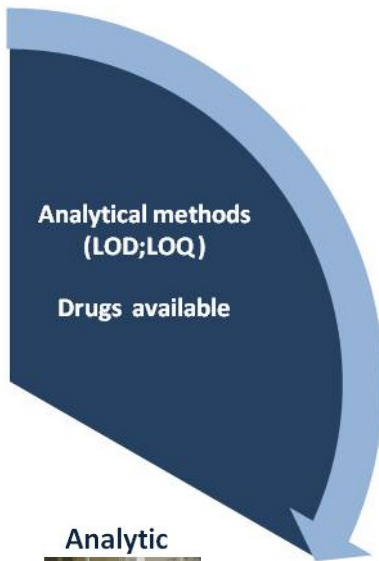


Amostra: STF07/03759 Padrão interno: bzeog-d3 Tecnologia: GC/MS
Substância: Benzoleogonina Controle: AC 100 Operador: stonseca
Observações: série 071217A Data: 18-12-2007

Controlo	Ído	Área	Área relativa	Tolerância	limite inferior	limite superior
1º Ído	82	451007	100.0%			
2º Ído	240	146684	36.6%	20% rel.	29.3%	43.9%
3º Ído	361	44779	11.2%	5 abs.	6.2%	16.2%
4º Ído						
Benzoleogonina (t.r.) =	11,80			0.2 abs.	11,605	12,005
bzeog-d3 (t.r.) =	11,80	t.r.r. =	1,001	1% rel.	0,991	1,011

Amostra	Ído	Área	Área relativa	Conformidade
1º Ído	82	321008	100.0%	conforme
2º Ído	240	117886	36.7%	conforme
3º Ído	361	38145	11.9%	conforme
4º Ído				
Benzoleogonina (t.r.) =	11,80			conforme
bzeog-d3 (t.r.) =	11,80	t.r.r. =	1,000	conforme

Gama	GC/MS	GC/MS/MS	LC/MS/MS
>50%	10%	15%	15%
25 - 50%	20%	25%	25%
<25%	5%	10%	10%
t.r.	0,2	0,2	0,4
t.r.r.	1%	1%	2%



Analytic



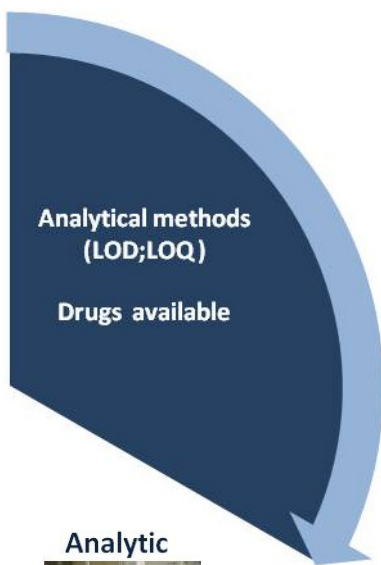
- Selectivity / Specificity
- Limit of Detection / Quantification
- Recovery
- Ruggedness
- Carry Over
- Precision
- Accuracy
- Linearity
- Working Range

Eurachem Guide: Quantifying uncertainty in analytical measurement

ILAC Guidelines for Forensic Science Laboratories

SOFT/AAFS Forensic Toxicology Laboratories Guidelines (2006)

WADA Technical document (TD2010IDCR). Identification criteria for qualitative assays incorporating chromatography and mass spectrometry



Analytic



Amphetamine type
Anfetamina
Norefedrina
Efedrina
Metanfetamina
Metcatinona
PMA
HMA
MDA
PMMA
HMMA
BZP
TFMPP
MDMA
MDE
MBDB
Mescalina
mCPP
2CT2
C2T7

Cocaína
Atropina
EME
Benzoilecgonina
Cocaetileno
Cocaína
Ketamina
Levamisole

Opiates
6-MAM
Codeína
Etilmorfina
Fentanil
Metadona
Morfina
Papaverina
Tramadol

New Psychoactive Substances (NPS)
Mefedrona
JWH-18
JWH-018 N-(4-hydroxypentyl) metabolite
JWH-018 4-hydroxyindole metabolite
JWH-018 5-hydroxyindole metabolite
JWH-018 N-(5-hydroxypentyl) metabolite
JWH-073
(±)-JWH-073 N-(3-hydroxybutyl) metabolite
JWH-073 N-(4-hydroxybutyl) metabolite
JWH-250
HU-210

Canabis
11-OH- D9-THC
D9-THCCOOH
D9-THC

The EMCDDA definition of DRD in the Key Indicator is 'deaths happening shortly after consumption of one or more illicit psychoactive drugs, and directly related to this consumption, although they often may happen in combinations with other substances such as alcohol or psychoactive medicines.

Usually these deaths are also named 'overdoses', 'poisonings' or 'drug-induced deaths'.



European Monitoring Centre
for Drugs and Drug Addiction

**Drug-Related Deaths (DRD)
Standard Protocol, version 3.2
2009**

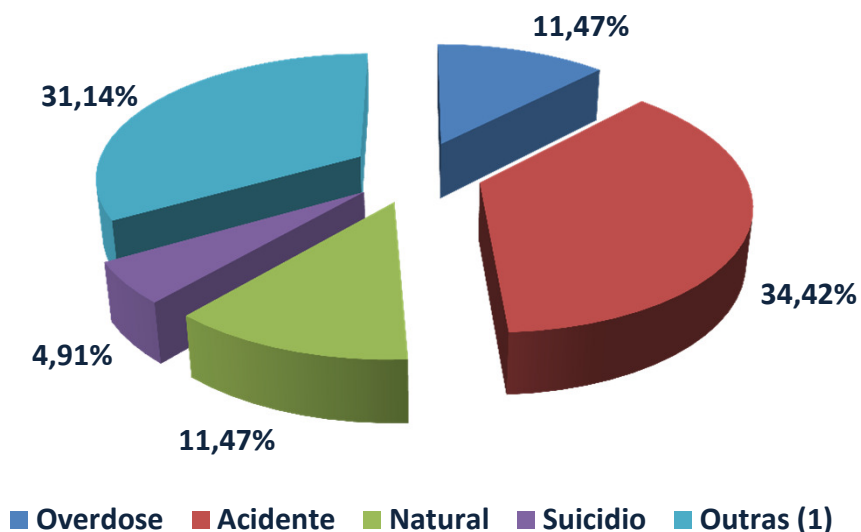
(from version 3.1 of 9 September 2005)

EMCDDA standard protocol for the EU Member States
to collect data and report figures for the Key indicator DRD
by the Standard Reitox templates

EMCDDA project CT.02.P1.05

EMCDDA/P1/2002, 2005 and 2009–10

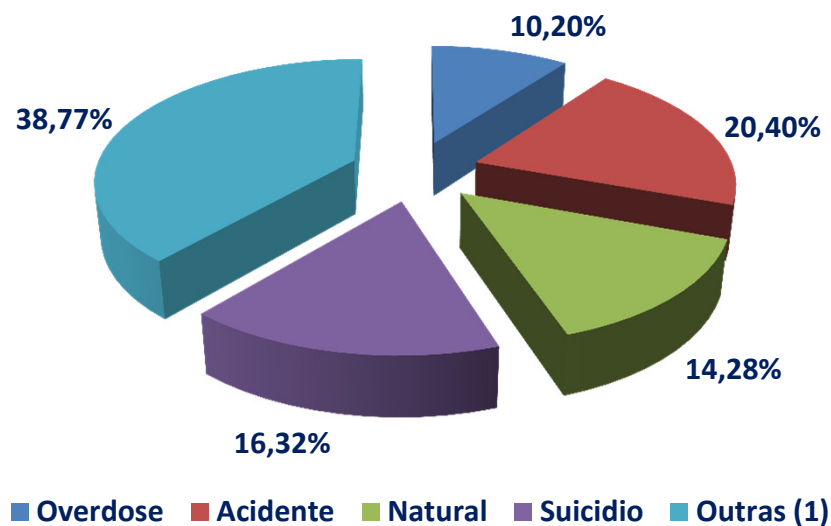
Drug Related Deaths (2011)



MORFINA	Total de casos	Causa de Morte				
		Overdose	Acidente	Natural	Suicidio	Outras ⁽¹⁾
Prevalência(%)		11,47%	34,42%	11,47%	4,91%	37,7%
Concentração Média (ng/mL)	140,1	159	140	126,4	118,6	140,3
Intervalo de concentração (ng/mL)	25 - 768	29 - 351	29 - 768	32 - 304	34 - 275	25 - 393

⁽¹⁾ Inclui: Homicídios; Causa Indeterminada e S/informação

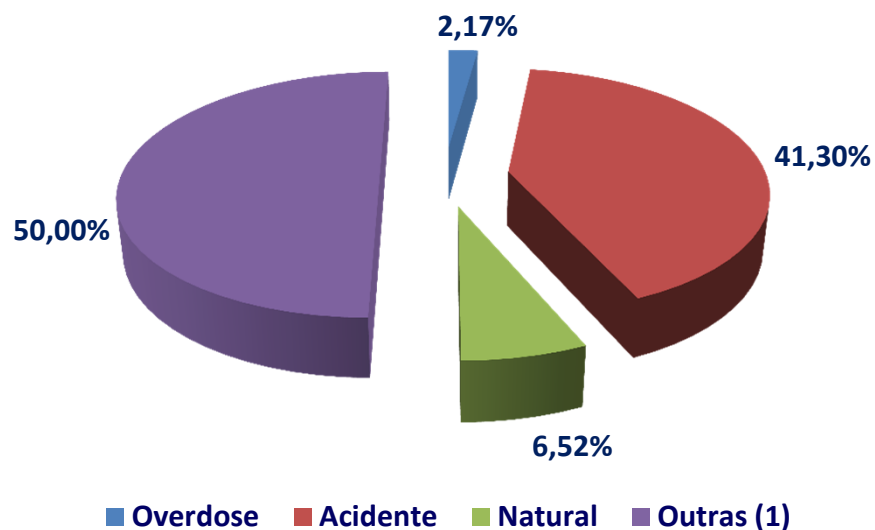
Drug Related Deaths (2011)



COCAINA	Total de casos	Causa de Morte				
		Overdose	Acidente	Natural	Suicidio	Outras ⁽¹⁾
Prevalência		10,20%	20,40%	14,28%	16,32%	38,77%
Concentração Média (ng/mL)	1080	860	524	246,3	1024	1761
Intervalo de concentração (ng/mL)	40 - 12322	54 - 2021	132 - 2000	44 - 601	43 - 3257	40 - 12322

⁽¹⁾ Inclui: Homicídios; Causa Indeterminada e S/informação

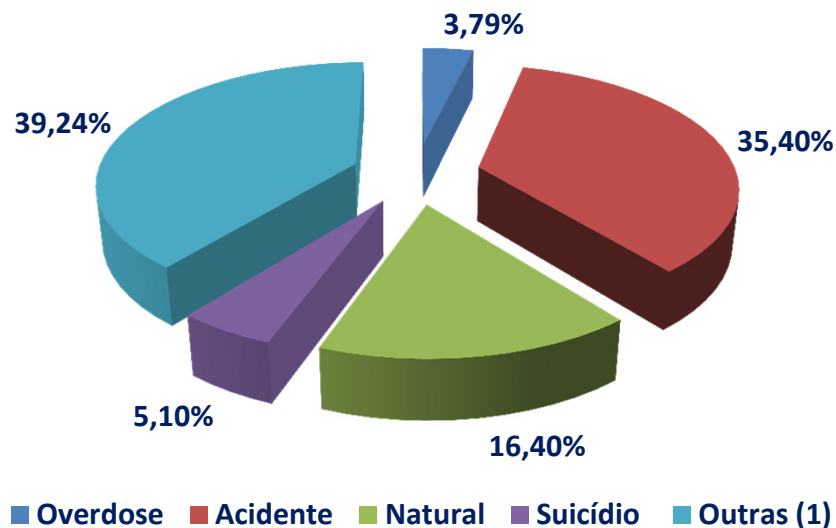
Drug Related Deaths (2011)



CANABIS (THC)	Total de casos	Causa de Morte				
		Overdose	Acidente	Natural	Suicidio	Outras ⁽¹⁾
Prevalência (%)		2,17%	41,30%	6,52%	----	50%
Concentração Média (ng/mL)	9,3	1,2	8,0	2,4	----	11,60
Intervalo de concentração (ng/mL)	0,6 - 65	----	1,1 - 32	1,4 - 4,4	----	0,6 - 65

⁽¹⁾ Inclui: Homicídios; Causa Indeterminada e S/informação

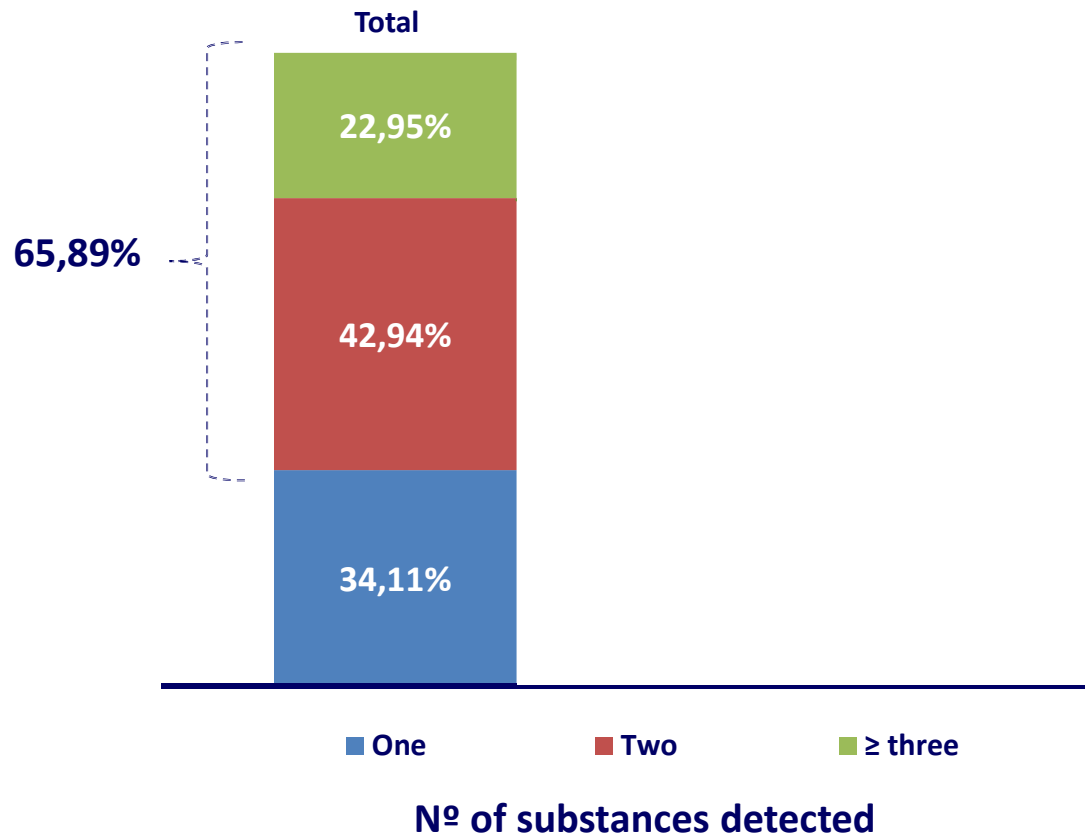
Drug Related Deaths (2011)



CANABIS (THC-COOH)	Total de casos	Causa de Morte				
		Overdose	Acidente	Natural	Suicídio	Outras ⁽¹⁾
Prevalência (%)		3,79	35,4	16,4	5,1	39,24
Concentração Média (ng/mL)	22,4	17	23	15,2	23,7	25,13
Intervalo de concentração (ng/mL)	2 - 139	7 - 34	4,2 - 139	2,5 - 44	12 - 36	2 - 108

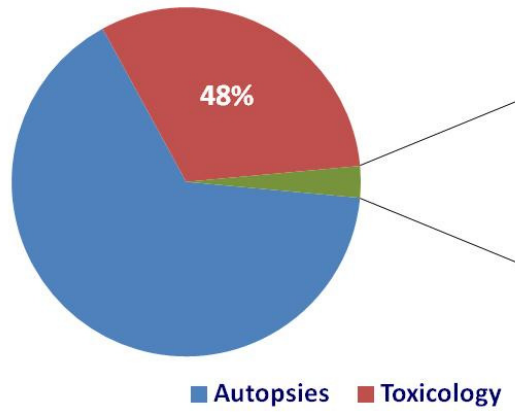
⁽¹⁾ Inclui: Homicídios; Causa Indeterminada e S/informação

Drug Related Deaths (2011)

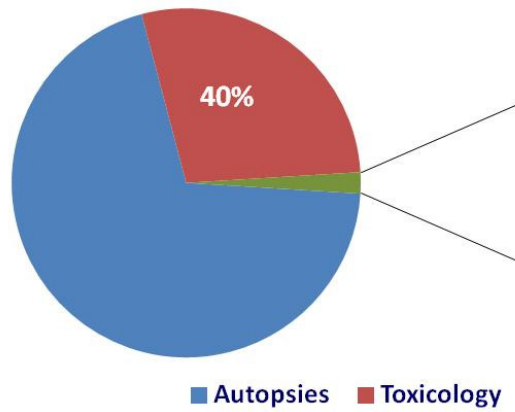


***Drug Related Deaths
(2010 – 2011)***

(2010)



(2011)



Drug Related Deaths (2010 – 2011)

