



<b>Title:</b>	International Perspective of Prescription Opioid Exposures Reported to Poison Centres from 2007 – 2010
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<b>Meeting:</b>	International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT)
<b>Date:</b>	May 2012
<b>Location</b>	London, England

#### Abstract:

**Objective:** Prescription opioid abuse has been deemed as epidemic in the United States (US). Abuse in other countries is not well studied. The objective of this study is to characterize human exposures to specific prescription opioids reported to poison centres from multiple countries over a 4 year study period.

**Methods:** Human exposures to oxycodone, buprenorphine, and methadone reported from 2007-2010 were obtained using a standardized data template with written definitions. Rates are reported as number of exposures reported per 100,000 population.

**Results:** Seven countries participated; Australia, Germany (Göttingen), Italy, Netherlands, Switzerland, United Kingdom (UK) and US. All centres manage calls from health care providers. Australia, Italy, Germany, Switzerland and US manage calls from the public as well. All countries reported increased oxycodone rates during the study period ranging from 30% to 410% (Table 1). Five of 7 countries reported increased buprenorphine rates (range 11 – 295%) while Germany and Italy reported decreases of 14% and 49%, respectively). Four of 7 countries reported increased methadone rates (range 4 – 29%) while Netherlands, UK and Australia reported decreased methadone rates (range 5 – 11%).

**Conclusions:** Oxycodone exposures reported to poison centres in all participating countries increased during the study period. Methadone rates were relatively unchanged during the study period, yet larger increases were reported in some countries for buprenorphine. While these data illustrate rates overtime within each country, one cannot compare rates between countries due to variation of data collection methods (some centres accept calls from the public, some do not). Additional data on reporting bias, drug availability, drug supply source, and types of exposures reported are required to further understand these findings.

*Table on next page*

Country in % Rank Order	Change	<u>Exposures rate per 100,000 population</u>				Rate Change (first rate reported to 2010)	% Change (first rate reported to 2010)
		2007	2008	2009	2010		
<b>OXYCODONE</b>							
Italy		0.008	0.007	0.038	0.043	+0.034	+410%
Switzerland		0.158	0.369	0.302	0.525	+0.366	+230%
Netherlands		0.190	0.238	0.212	0.392	+0.203	+107%
Australia		1.904	2.142	3.010	3.286	+1.382	+73%
Germany		0.212	0.348	0.280	0.364	+0.152	+71%
United States		3.497	4.193	4.535	4.856	+1.359	+39%
United Kingdom		NR	0.099	0.145	0.128	+0.029	+30%
<b>BUPRENORPHINE</b>							
Netherlands		0.012	0.037	0.024	0.048	+0.036	+295%
United States		0.413	0.684	0.835	0.944	+0.530	+128%
Australia		0.337	0.419	0.499	0.530	+0.192	+57%
Switzerland		0.238	0.198	0.342	0.289	+0.050	+21%
United Kingdom		NR	0.104	0.121	0.115	+0.012	+11%
Germany		0.167	0.144	0.182	0.144	-0.023	-14%
Italy		0.045	0.052	0.033	0.023	-0.022	-49%
<b>METHADONE</b>							
Italy		0.096	0.107	0.096	0.123	+0.028	+29%
Germany		0.432	0.402	0.455	0.500	+0.068	+16%
Switzerland		1.112	1.147	1.131	1.220	+0.108	+10%
United States		1.186	1.172	1.232	1.230	+0.044	+4%
Netherlands		0.514	0.488	0.461	0.489	-0.025	-5%
United Kingdom		NR	0.206	0.171	0.188	-0.018	-9%
Australia		0.607	0.586	0.583	0.539	-0.068	-11%
NR = not reported.							