

AN EPIDEMIOLOGIC ANALYSIS OF INTOXICATIONS IN THE ITALIAN REGION OF EMILIA ROMAGNA FROM 2005 TO 2009

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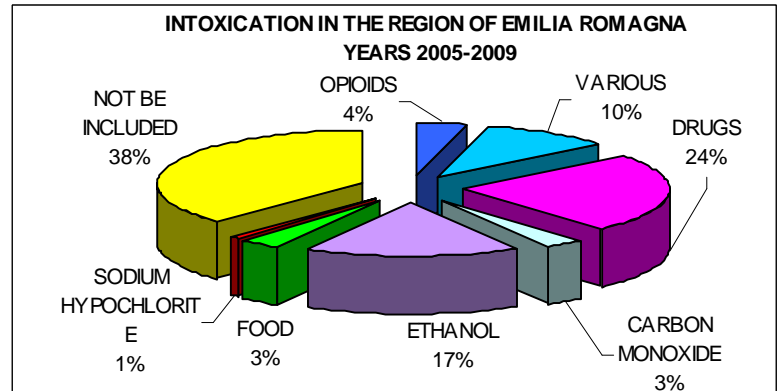
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Background: The Department of Pharmacy of the University Hospital of Ferrara (AOUFE) activated a project called "Monitoring and implementation of the Centre of Reference for antidote stocks". Its development follows the correct allocation of available antidotes in the Centre of Reference of the Region Emilia Romagna (RER).

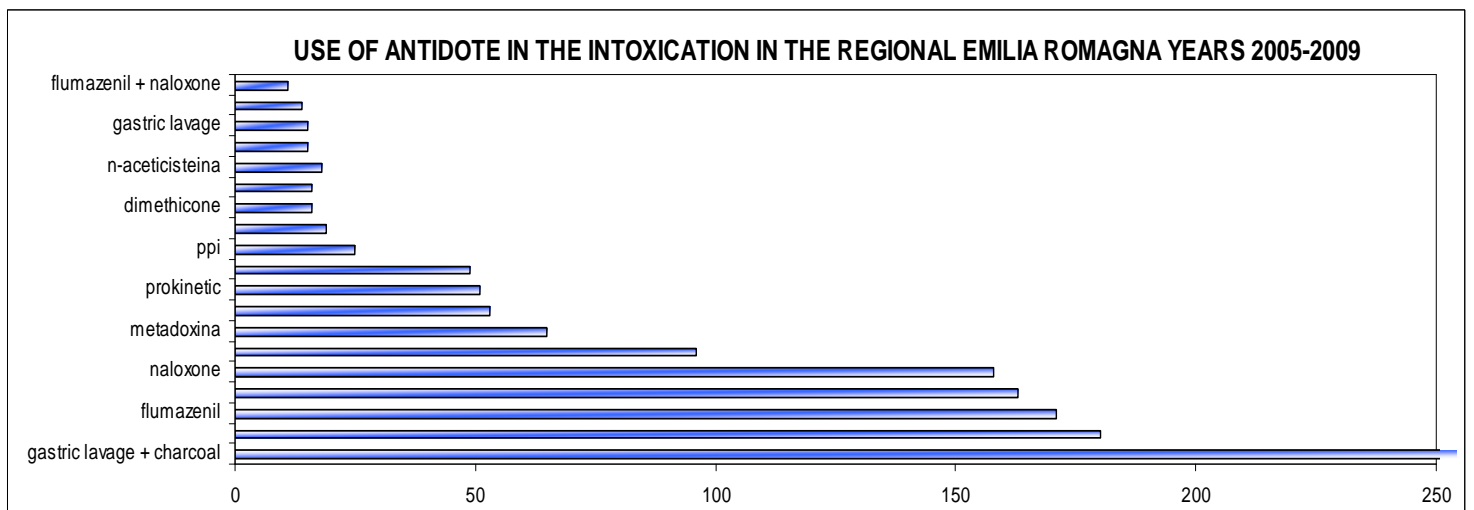
Purpose: Epidemiological analysis to identify different types of intoxication and their respective treatments has been carried out as well.

Material and Methods: All the 17 Hospitals of the RER were asked to provide information about intoxications registered from 1/1/2005 to 31/12/2009 as well as their respective antidote therapies. Required data were: year, type of intoxication and toxic substance, patient's features, type of antidote used and treatment period.

Results: 16 hospitals took part in the analysis. 8151 intoxications were registered and they are grouped as follows: 1704 intoxications in 2005 (21% over the whole 5-year period); 1523 in 2006 (19%); 1593 in 2007 (20%); 1560 in 2008 (19%); 1771 in 2009 (21%). Categorization by toxic substance showed the following: 31% caused by drugs; 17% caused by ethanol; 4% by opioids; 3% by carbon monoxide; 3% by food; 1% by sodium hypochlorite and derivatives; 36% by non classifiable intoxications; 5% by various intoxications. Over total poisoning, we evaluated only poisoning complete and detailed (1223/8151) and we calculated that in 41% of poisoning antidotes have used the following: 19% (232/1223) activated charcoal associated with gastric lavage; 11% (132/1223) activated charcoal; 9% (109/1223) activated charcoal associated with MgSO₄; 12% (144/1223) flumazenil; 6% (76/1223) hyperbaric oxygen; 12% (151/1223) naloxone; 7% (80/1223) metadoxine; 4% (53/1223) benzodiazepines.



YEAR	POPULATION RER	N° INTOXICATION	INTOSSICAZIONE/10.000 POPULATION
2005	4116962	1707	4,146
2006	4223255	1523	3,606
2007	4275843	1593	3,726
2008	4337966	1560	3,596
2009	4395606	1771	4,029
MEDIUM INTOXICATION/10.000 INHABITANTS			3,821



Conclusion: Drug and ethanol poisonings were the most frequent; non-specific treatments were the most frequently performed, followed by the use of specific antidotes such as flumazenil and naloxone.

Epidemiological analysis shows that the frequency of intoxications in RER is 3.82 per 10000 inhabitants/year.

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