

Joint Event on



International Conference on

# PHARMACEUTICAL CHEMISTRY & DRUG DISCOVERY

&

Global Congress on

# TOXICOLOGY AND PHARMACOLOGY

September 10-11, 2018 | Dublin, Ireland

# DAY 1

## Scientific Tracks & Abstracts

Pharma Chem Congress 2018 & Toxicology Congress 2018

# Day 1

# SESSIONS

September 10, 2018

Research Studies in Pharmacology | Drug Discovery and Development | Toxicological  
Pharmacovigilance | Drug Toxicology and Drug Interaction | Experimental and Toxicological Pathology |  
Applied toxicology

## Session Introduction

### Session Chair

**Pawan Saharan**  
Biomix Network Limited,  
India

**Title: Assessment of resources and services utilization of Alexandria Poison Center**  
Maha Ghanem, University of Alexandria, Egypt

**Title: Methadone poisonings in France: A seven-year experience of the French poison control center network**

Katharina Von Fabeck, Hôpital Sainte Marguerite, France

**Title: Pattern of pediatric poisoning in Egypt- cases admitted to National Poisoning Control Center**

Dina A Shokry, Cairo University, Egypt

**ASSESSMENT OF RESOURCES AND SERVICES UTILIZATION OF ALEXANDRIA POISON CENTER****Maha Ghanem, Salma Abdullah Mohammed and Mona Hamdy**

University of Alexandria, Egypt

**Background:** The structure and function of poison centers varies around the world; however, at a minimum a poison center is an information service. Some poison centers may also include a toxicology laboratory and/or a clinical treatment unit. Unfortunately, there is little information about poison centers in Arabian countries, especially in Egypt.

**Aim:** To assess structure, resources of Alexandria Poison Center (APC) based on WHO criteria. To assess admission rates, identify demographic characteristics of admitted patients and types of poisons incriminated.

**Subject & Methods:** Cross-sectional survey was carried out in Alexandria Poison Center (observational checklist). Retrospective study: center admission registries was reviewed to collect data throughout 2017 (transfer sheet) ethical considerations: confidentiality of data was ensured all through the study work. An approval from Alexandria faculty of medicine ethics committee was obtained.

**Results:** In 2017, 6171 were admitted to APC with mean age of  $19 \pm 15$  years and gender distribution was 55% females and 45% males. Patients admitted from Alexandria governorate was 69.7%, from Elbehira 25% and few percentages from other governorates. The rate of admission was higher in summer time with two peaks at May and July, critical cases account for about 5% of cases. Most of cases were accidental 63.2%, suicidal poisoning account for 36.8% of cases, the major route of poisoning was oral one 93.8%, a minimal percentage for inhalation and skin exposure. As regard types of poisons drug poisoning and organophosphates took the higher percent of cases 21.7%, 21.4% respectively then corrosives 12.3%, then food poisoning and sedative abuse of 11% for each, poisoning by alcohol account for 5.5% of cases and gas inhalation 2.3% of cases. 2.2% for animal and insect stings, and only 0.6% of cases were opioid and cannabis abuse. The center has an adequate staff including toxicologists, nurses and administrative staff covering 24 h daily and seven days weekly, poison information center receives few numbers of calls daily as most of patients adapted to come to emergency services directly in case of poisoning. Laboratory devices are somewhat adequate based mainly on immunoassays still lacking more confirmatory techniques as chromatography. Toxicological units and intensive care units are well prepared with all devices and drugs which are needed for care of poisoned patients. Automated information systems are still under development, the center was lacking poisoning prevention programs and plans for major disasters.

**Conclusion:** APC carry the three functions of poison center that is clinical, laboratory and information center services.

**BIOGRAPHY**

Maha Ghanem is a Professor of Forensic Medicine and Clinical Toxicology since 2006, Egypt. She is the Director of Alexandria Poison Center. She has over 40 publications. She works as Chairperson of Ethics Committee Faculty of Medicine – Alexandria University. She was the General Secretary of the Supreme Council of Health. She is a Member in many committees as Eastern Mediterranean Association of Medical Editors (EMAME) Egyptian Network of Research Ethics Committees (ENREC). In 2015, she became external evaluator of doctorate degrees of Forensic Medicine and Clinical Toxicology and master's degrees of Forensic Medicine and Clinical Toxicology, Faculty of Medicine, Tanta University and Cairo University. She was chosen as an Associate Editor in *AJME*, peer reviewer in *Food and Chemical Toxicity*, *Egyptian Heart Journal*, peer reviewer in *SQUJ*, *Human and Experimental Toxicology* and Editorial Manager and peer reviewer in *Environmental Science and Pollution Research*.

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## METHADONE POISONINGS IN FRANCE: A SEVEN-YEAR EXPERIENCE OF THE FRENCH POISON CONTROL CENTER NETWORK

**Katharina Von Fabeck<sup>1</sup>, Romain Torrents<sup>1,2</sup>, Mathieu Glaizal<sup>1</sup>, Luc de Haro<sup>1</sup> and Nicolas Simon<sup>1,2</sup>**

<sup>1</sup>Hôpital Sainte Marguerite, France

<sup>2</sup>Aix-Marseille Université, France

**M**ethadone is an opioid agonist prescribed in France for the treatment of opioid dependency. To evaluate the clinical toxicity of methadone, the authors present a seven-year experience of the French poison control center (FPCC) network at the national level. This study is a retrospective analysis of methadone exposures reported to the nine FPCC between October 15th, 2010 and October 15th, 2017. The two pharmaceutical forms (capsule and syrup) were considered. Childhood accidental poisonings were excluded (different study). 1415 cases of methadone poisoning were included (29% female, 71% male, average age 34 +/-10). 90% of the patients had history of addiction and 69% were treated with methadone (31% were naïve patients). The two main circumstances were addictions (47% of the cases) and suicide attempts (41%). In 45% of the cases it was capsules, in 35% syrup, unknown for 20%. The ingested methadone dose was significantly higher for suicide attempts (average dose 250 mg) than for addictions (average dose 140 mg). 126 deaths were observed representing 7% of the global deadly medicine poisonings observed during the studied period at the national level for the FPCC. Comparison of the addictions versus the suicide attempts emphasizes differences: female patients were more implicated in suicide attempts with ingestion of their own treatment, mainly capsules at home with association of benzodiazepines; while addictions concerned mainly males who ingested syrup, frequently associated with other narcotics, and with a higher morbidity and mortality (four times more deadly evolutions with addictions than with suicide attempts). Despite lower ingested quantities of methadone with addictions, this study observed higher morbidity and mortality in this circumstance versus suicide attempts. Many reasons can explain this result (high percentage of naïve patients during addictions, positive image of methadone in the addicted population). Undoubtedly, methadone must be considered as a highly toxic medicine.

## BIOGRAPHY

Katharina Von Fabeck has absolved her studies in Münster, Germany. Her thesis "Golf after total hip arthroplasty: A retrospective review of 46 patients" in orthopedics and sports medicine was published in the *Journal of Sport Rehabilitation* in 2006. She started her medical career in France in the Gastroenterology Department in the hospital of Salon de Provence before changing-over to work at the Poison Control Center of Marseille in 2014. At the poison control center, she trains and supervises medical and pharmaceutical students. She works on prevention and toxicological topics (European studies about laundry detergent pods, French studies about button batteries, poisoning by baclofen and buprenorphine) and is publishing in international journals with her colleagues. She has been teaching Pharmacology at the Aix-Marseille University since 2016. Her interests are natural toxins like venomous animals and plants, for which she passed the worldwide Clinical Toxinology short course in Australia in 2017.

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Note:

## **PATTERN OF PEDIATRIC POISONING IN EGYPT- CASES ADMITTED TO NATIONAL POISONING CONTROL CENTER**

**Dina A Shokry**

Cairo University, Egypt

**Background:** Poisoning is an important emergency as well as major problem in pediatric age groups throughout the world. Most of the poisoning in children is accidental. Unfortunately, the incidence of deliberate poisoning among adolescents is increasing due to changing familial and social conditions in our society.

**Aim:** The purpose of this study was to identify the common manner of toxicity and rate of child toxicity in Egypt. Also, it aimed to elucidate the precipitating factors for child poisoning and the common complication.

**Methods:** The current study was conducted on 500 of Egyptian participant of both sex in age blew 18 years old at NECTR; participants were classified into four age groups; toddlers (1-<3 years), early childhood (3-<9 years), late childhood (9-<13 years) and adolescent (13-<18 years). Data were analyzed with respect to demographic data, toxicity data: manner of toxicity, type of poison, its availability to the child, place of exposure, amount and form of poison, duration between exposure and presentation, the first aid that may be done to the patient, associated morbidity, history of medications and severity and mortality rate of each poisons detected by poison severity scoring(PSS) and the acute physiology and chronic health evaluation (APACHE II).

**Results:** Accidental toxicity (58.6%) is still common than intentional toxicity (41.4%), toddlers were the most common age group in accidental, while negligence was the most probable cause of accidental toxicity. On other hand adolescent and females were common age group in suicidal, and family problems were the most probable cause of suicidal toxicity. There were multiple significant relations between demographic data (age, sex, residence, level of education and family status) and type of poison, its availability, location of exposure, most probable cause of exposure, manner of toxicity. There were significant relations between PSS and type and amount of poison, vital signs and CNS manifestations, period of admission and hours of delay. There were significant relations and positive correlation between APACHE II and type and amount of poison, vital signs and CNS manifestations, period of admission and hours of delay.

**Conclusion & Recommendations:** The present study proved that accidental toxicity is still common manner among pediatric age group but there is increasing in incidence of suicidal toxicity among them. Further attention from parent is needed and proper care to children in different age group to prevent and reduce the toxicity in pediatric age group.

## **BIOGRAPHY**

Dina A Shokry has completed her bachelor's degree in Pharmacy in 2009 from Ain Shams University. She completed her master's degree in Analytical Chemistry from Cairo University in 2013. Currently, she is pursuing her PhD as a member of Dr Waters group for finding alternatives to animal testing at Huddersfield University. She worked as a Teaching Assistant then as an Assistant Lecturer of Analytical Chemistry at Future University. She produced high quality research that was published in several reputed peer reviewed journals. She has presented her work in nine conferences. Her work is focused on developing models for prediction of human intestinal absorption through *in vitro-in vivo* correlation studies, which has economic impact in the pharmaceutical industry field. She developed prediction models from MLC, solubilization and permeation studies where the obtained *in vitro* data correlated well with the *in vivo* absorption data and resulted in two recently published papers.

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