

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

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Methadone 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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