Medical Toxicology Study Shows Poisonings with Malicious Intent are Higher in Infants Than Other Age Groups

January 14, 2019—Researchers from the American College of Medical Toxicology’s (ACMT’s) Toxicology Investigators Consortium (ToxIC), publish study on poisoning with malicious or criminal intent with data collected from ToxIC’s case registry.

In January 2019, “Poisoning with Malicious or Criminal Intent: Characteristics and Outcome of Patients Presenting for Emergency Care” was published in Clinical Toxicology. The study was conducted using data in the ToxIC Registry between 2014–2017.

Though poisoning is the leading cause of injury-related deaths in the US, the authors conclude that poisonings with malicious intent are uncommon; yet they are disproportionally directed towards infants and young toddlers, frequently resulting in severe injury and may carry relatively high mortality.

The study looked at data from 60 cases of patients who presented to the emergency department as victims of malicious poisoning and found:

- 35% (21) were pediatric, of these 81% (17) were children under age 2 years.
- 43% (9) of children were infants less than 12 months old.
- The main substances used in these poisonings were sympathomimetics such as methamphetamine and cocaine as well as opioids.

Principal author Dr. Yaron Finkelstein explains, “The most striking and worrisome finding from this study was the high proportion of infants and young children who were victims of malicious poisoning. Children were often more severely harmed, required more intensive care modalities, such as mechanical ventilation, and sadly, not all survived. Infants are highly vulnerable and have no ability to verbally communicate and provide information about the circumstances of the overdose. We hope that by unveiling and characterizing this phenomenon in a systematic research study, our findings will spark additional research on an even larger scale into this phenomenon, to better identify and hopefully prevent future cases."

View abstract for details.
Toxicology Investigators Consortium (ToxIC) is a multicenter toxico-surveillance and research network comprised of physicians specifically qualified in the field of medical toxicology. ToxIC is part of the American College of American Toxicology.

Advancing the Toxicologic Care Patients and Populations
The American College of Medical Toxicology (ACMT) is a professional, nonprofit association of more than 700 physicians with recognized expertise in medical toxicology. Medical toxicology focuses on the diagnosis, management, and prevention of poisoning/toxicity and other adverse health effects resulting from medications, chemicals, occupational and environmental substances and biological hazards.