



E49 Medicolegal Death Investigation in the Changing Face of Drug Overdoses

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After attending this presentation, attendees will have a new understanding of the impact of the current opioid/opiate crisis on Medicolegal Death Investigation (MDI) and evolving investigative paradigms involving scene responses, decedent history evaluation (including internet and social media use), and safety concerns.

This presentation will impact the forensic science community by illustrating the rising number of overdose deaths and that the increasing potency of the drugs involved has caused a paradigm shift in MDI in Cuyahoga County, OH.¹ The basic investigative elements of history collection, scene investigation, and scene safety have all been impacted. The resulting developments have involved both the public safety and public health roles of the office.

Cuyahoga County (metropolitan Cleveland), OH, has a population of approximately 1.3 million people. The Medical Examiner's Office (MEO) investigates all sudden, unexpected, suspicious, and violent deaths, including all deaths by intoxication with drugs. In 2006, there were 250 total Drug-Related Deaths (DRDs), primarily involving cocaine and prescription opioids. Over the following years, heroin played an increasing role in overdose mortality and this trend peaked in 2014 when there were 353 DRDs, with the majority involving heroin. Following this, the drug crisis in Cuyahoga County acutely worsened with the appearance of fentanyl and the fentanyl analogues (e.g., carfentanyl). Mortality reached 666 DRDs in 2016 and is currently projected to continue rising in 2017. In the majority of DRDs, the decedent is pronounced dead at the scene and an MEO investigator responds to the scene. All investigators are certified by the American Board of Medicolegal Death Investigators.

The initial telephone report is now approached with a higher index of suspicion for the possibility of a DRD. Scene details, including body position, items presently at scene, and circumstances, determine whether jurisdiction will be accepted and a scene visit is required. Apparent natural deaths require adequate follow-up questions and some jurisdictions have even adopted universal checks of the prescription drug-monitoring program data prior to releasing a case.

Scene visits have evolved in important ways too. Because of the increased prosecution of DRDs, a task force was created to process the overdose death scenes as potential crime scenes. This has required the collaboration of the MEO death investigator, narcotics detectives, and prosecutors. The handling of evidence has also been transformed with increased focus on chain of custody as well as safety concerns. The changes in drug potency have led to mandatory use of personal protective equipment at scenes (minimum of gloves and face mask), as well as investigators carrying naloxone (the opioid antagonist) in the event of an untoward exposure. These safety concerns extend into CCMEO itself when drugs previously undiscovered may place receiving personnel at risk.

History collection at the death scene has expanded. Routine questions regarding types of drugs used and routes of administration have been supplemented by inquiries regarding recent sobriety, incarcerations, or rehabilitation in a treatment facility.

Family are asked about recent purchases and shipments (especially from overseas or from the internet), social media, and cellphone data that may also provide valuable information and must be evaluated.

The role of MDI in opiate/opioid deaths is evolving and expanding. As the drug overdose crisis worsens, medicolegal investigators need to adapt practices to emerging trends and to collaborate with other investigative partners to produce optimal results.

Reference(s):

1. Gilson T.P., Stopak J., Medicolegal Death Investigator Field Guide, Investigative Unit, Cuyahoga County Medical Examiner's Office, 2015.

Designer Fentanyl Analogues, Death Investigation, Opioid/Opiate Crisis