



Pathology/Biology Section - 2015

H155 Heroin Trends in Cuyahoga County, 2013

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After attending this session, attendees will understand the emerging problem of heroin abuse and its relationship to prescription narcotic abuse. Attendees will gain an appreciation of significant risk factors for heroin overdose.

This presentation will impact the forensic science community by highlighting an emerging national epidemic of heroin abuse. By defining risk factors, public health interventions may be formulated. A model for data collection, analysis, and intervention planning is presented which may serve as a template for other communities experiencing this problem.

Heroin has been a cause of overdose fatalities for several years with intermittent cycles of increased popularity. Recently, abuse of Opioid Pain Relievers (OPR) has been linked to an alarming rise in mortality on a national level and several efforts have been made to address this problem. In Cuyahoga County, OH (metropolitan Cleveland), heroin mortality has re-emerged and overshadowed all illicit and legal drug-related fatalities, including OPR. In 2013, there were 194 overdose fatalities involving heroin, either alone or in combination with other drugs, representing approximately 60% of all overdose deaths.

Analysis of demographic data revealed that the majority of the deaths involved the White race (85%) and males (73%). The most common age group was 45-60 years of age (38%) and most victims were single or divorced (86%). Recent trends in the county have shown an increase in the percentage of women and younger addicts, each of which now represent approximately 25% of all deaths. There was a slight majority of suburban deaths (outside of Cleveland city proper), both in injury incident location as well as decedent residence. Approximately 12% of deaths were veterans of the armed services.

In early 2013, The Cuyahoga County Medical Examiner's Office convened a Poison Death Review Committee to prospectively review heroin fatalities in greater depth. This multidisciplinary committee includes members from medical and law enforcement/judicial communities sharing primary source information on a number of variables to provide data to inform policy decisions. These variables included whether the decedent was using drugs with others (12%), whether others were present but not using drugs when the decedent overdosed or proceeded through the terminal stages of intoxication (58%), whether first responders administered the opiate overdose antidote naloxone (28%), whether drug paraphernalia was present at the scene of death (53%), and whether the decedent had a previous history of illicit drug use (95%), especially intravenous drug abuse (62%). Review of recent decedent interactions with various systems revealed that within two years prior to death, 64% had received some type of medical treatment, 45% had some mental health history, 48% had received detoxification/rehabilitation services, and 40% had been incarcerated.

To explore the relationship between heroin mortality and prescription medications (including OPR), data from the Ohio Automated Rx Reporting System (OARRS), the Ohio prescription drug monitoring program was reviewed. OARRS data is limited to two years prior to the date of the search. The majority of Cuyahoga County heroin victims had a legal prescription for a controlled substance within two years of their fatal overdose (73%), with 65% having a prescribed opioid and 32% with a prescribed benzodiazepine. Of note, 36% of decedents met criteria for "doctor shopping," defined as five or more prescribers of controlled substances within a one-year period.

These data have been employed to support public health interventions in the county and indicate there are significant opportunities for educational efforts on several fronts to address this epidemic.

Heroin, Mortality, Epidemiology