G92 Methadone Deaths are on the Increase in Maryland (1998-2004)

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After attending this presentation, attendees will learn the details about the increase in methadone related deaths in Maryland and they will realize the importance of cooperation between state drug research groups and the medical examiner's office.

This presentation will impact the forensic community and/or humanity by assisting the forensic community in recognizing local and national trends in methadone related deaths and the need to be diligent in checking the information that is given to research groups that share data with medical examiner's offices. They will also realize that the cooperative effort between these groups can result in the elucidation of causes for drug trends that can be of public benefit.

This presentation will review the increase in Methadone deaths in the State of Maryland from 1998-2004 and discuss the cooperative efforts of the Office of the Chief Medical Examiner (OCME) and the Maryland Drug Early Warning System (DEWS) at University of Maryland's Center for Substance Abuse Research (CESAR).

Methadone is a narcotic used in the treatment of addictive disorders and chronic pain. Nationally, methadone associated deaths increased rapidly in 2001 and 2002. A national report in 2004 showed that the recent increases in methadone use and associated mortality were related to its use as an analgesic and not to its use in opioid treatment programs. Maryland also showed a significant increase in methadone related deaths from 1998 to 2004.

The computerized files of the OCME were searched for all cases positive for methadone by toxicology. These cases were then individually reviewed to determine the number of cases in which methadone intoxication was the only cause of death and those in which methadone contributed to the cause of death in multiple drug intoxications. The concentration of methadone, cause and manner of death, and demographics were reviewed for those cases.

There was over an eight-fold increase in the number of methadone intoxication deaths from 1998 to 2004 with a peak 11-fold increase in 2003. There was over a five-fold increase in the total number of drug deaths involving methadone, including methadone only and multiple drug deaths involving methadone. During this time the commercial distribution of methadone increased at a much faster rate than the admissions to methadone treatment programs. Most decedents were white males in their late 30s and early 40s. Over the years, the residents of Baltimore City made up a decreasing proportion of the deaths. Medical conditions contributing to death made up a small percentage of cases. In all cases, the most commonly found drugs were antidepressants. The most common other lethal drug was morphine in the multiple drug intoxication deaths. The most common manner of death was undetermined. There was no significant difference in the concentration of methadone in the methadone only vs. multiple drug intoxication deaths. The source of the methadone was unknown in over 50% of the cases and this spurned a pilot study in which OCME pathologists collected additional information from September 2004 to May 2005 about each decedent's source of methadone using a specially prepared CESAR form. Even using the form, information about the source of methadone was still unknown for over 50% of the cases.

Our review has findings similar to the national review, in that decedents most likely obtained methadone through means other than treatment programs. The increase in methadone deaths appears to be due to the procurement of legally prescribed drug for chronic pain or illegal diversion and street sales and does not appear to be from its use in treatment programs. Investigators were not asking specific enough questions about the source of methadone. If additional information was requested on the CESAR form and that information was not needed for the determination of cause and manner of death, then additional calls were not made and the information was listed as unknown. In the future, OCME investigators will be paid by funds from CESAR to collect the desired information for these forms. Thus, in the near future, an answer to this question shoul be available. Also, as a result of this review, the OCME adopted a new protocol in which each separate drug is now listed in the cause of death and this will facilitate statistical research.

Methadone, Research, Maryland

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