G26 Public Death From Orally Ingested Drugs During a One Year Period in Louisiana as Analyzed by a Single Forensic Toxicology Laboratory

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After attending this presentation, attendees will learn about a population-based timed study of death by oral ingestion of drugs.

This presentation will impact the forensic science community by teaching the necessity of scientific precision in all aspects of a forensic study.

Monday, July 28 (HealthDay News) – Researchers have discovered a soaring increase in the number of fatal medication errors that occur in people's homes.

The report incidentally follows the death earlier this year of Heath Ledger, the 28-year-old actor who died from an accidental overdose of prescription drugs in his apartment in New York City.

"[There was] large-scale evidence that the death rate from prescription errors was going up very fast, but I didn't know until this paper that they were going up extremely fast in particular circumstances, namely at home and when alcohol and/or street drugs are involved," said study author David P. Phillips, a professor of sociology at the University of California at San Diego.

"I also didn't know from this paper that the number of years of potential life lost from potential medication errors are greater than the number of years of potential life lost from all accidents combined, including falls and drowning," he said.

According to background information in the paper, published in the July 28 issue of the *Archives of Internal Medicine*, there has recently been a dramatic shift in fatal overdoses *away* from inpatient settings to outpatient settings. More and more medications are taken outside of the hospital or clinic, with far less oversight from health-care professionals, the researchers said.

At the same time, more medications that once were available only by prescription are now bought over-the-counter, and more people are taking more than one medication.

All of this makes it easier for individuals to combine medications with alcohol and/or street drugs. But despite this shift, few if any studies have looked at drug errors outside clinical settings. Almost 50 million death certificates were filed in the United States between January 1, 1983 and December 31, 2004, with 224,355 of them involving fatal medication errors (FMEs). After examining all of these documents, it was discovered that the overall death rate from fatal medical errors increased by 360.5 percent during that time period.

The surge in FMEs differed by type. FMEs occurring at home and combined with alcohol and/or street drugs increased the most, by 3,196 percent. FMEs not happening at home and not involving alcohol and/or street drugs showed the smallest increase, at 5 percent.

Meanwhile, at-home FMEs not involving alcohol and/or street drugs increased by 564 percent, while at-home FMEs involving alcohol or street drugs increased by 555 percent.

Overall, the increase in FMEs was particularly pronounced among people aged 40 to 59, where the increase was 890.8 percent. "People should no longer just focus on medication errors in clinical settings and caused by clinical staff," Phillips said. "There's a whole new world out there that needs to be investigated, that is to say, fatal medication errors occurring at home and not in clinical settings, and apparently influenced by patients and not by staff."

Another expert agreed.

"Most of the information we have about medication errors and their effect take place within the hospital setting," noted Lisa Killam-Worrall, director of drug information and assistant professor of pharmacy practice at Texas A&M Health Science Center Irma Lerma Rangel College of Pharmacy.

But she said there's a real challenge in finding out exactly what substances people might be taking along with their prescription medications.

"As pharmacists, we always try to counsel people when medications could interact with alcohol or other medications, but there aren't that many studies looking at interactions with street drugs," Killam-Worrall said. "We normally don't ask people, 'Are you using street drugs and which ones are you using?' We normally try to ask people, "What other medications are you taking, prescription, over-the- counter, herbal supplements?' But usually with illicit drug use, you're not going to garner a lot of information."

The findings also have policy implications in terms of patient care , Phillips added.

"Asking patients to be part of the quality-control team is not something you can just automatically do," he said. "It's true that keeping shorter times in hospitals saves money, but it apparently loses lives, and a way to try to ameliorate that would be to spend more time in educating the patient about the risks of taking these powerful medicines and the risks, particularly, of taking these powerful medicines in conjunction with alcohol and/or street drugs."

Public death as a studied scientific phenomenon provides a unique opportunity for the understanding of the human condition and its attributes. This study of the death during the year 2008 of a small cluster of Louisianians whose death became public as determined by their willful consumption of controlled substances

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and drugs will provide the reader with a privileged insight into these actions. The study has defined boundaries.

The deaths are in single geopolitical area, under a single authority, had no pre-established descriptors save that the deaths are secondary to drug use investigation, were in a precise timeframe of one year, had a uniform management in all details, and most importantly had professional scientific establishment of the cause and the nature of the death through detailed pathological and toxicological studies. The expenses of the study are secondary to the established budgetary standards of this government. These high standards are dictated by the important and constant use of the data and the conclusions derived therefrom to maintain the order of a complicated modern society.

More information

The U.S. Food and Drug Administration has more on medication errors. SOURCES: David P. Phillips, Ph.D., professor, sociology, University of California at San Diego, La Jolla; Lisa Killam-Worrall, Pharm.D., BCPS, director, drug information and assistant professor, pharmacy practice, Texas A&M Health Science Center, Irma Lerma Rangel College of Pharmacy, Kingsville, Tex; July 28, 2008, *Archives of Internal Medicine*

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