Medical Toxicology and Public Health—Update on Research and Activities at the Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry

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The following is an update on research and activities in which medical toxicologists are actively involved at the National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry (NCEH/ATSDR) at the Centers for Disease Control and Prevention. The *Journal of Medical Toxicology* will periodically highlight some of these activities to illustrate the growing relation between medical toxicology and public health.

HEALTH STUDIES BRANCH (NCEH, CDC)

Outbreak of acute renal failure with neurological symptoms—Republic of Panama

On October 2, 2006, the Ministry of Health of the Republic of Panama (PMOH) requested urgent technical assistance from the Centers for Disease Control and Prevention after the outbreak of unknown etiology. Patients presented to health care institutions with acute onset of renal dysfunction and vague gastrointestinal symptoms. They were subsequently admitted to the hospital and within several days began to develop signs and symptoms of neurological toxicity. Personnel, including a medical toxicologist, medical epidemiologist, analytic epidemiologist, neurologist, media communications specialist, laboratorian, and logistician were initially deployed to Panama to assist the PMOH with their investigation.

Over the next 2 weeks, the CDC team partnered with representatives from the Pan American Health Organization, the Gorgas Memorial Institute, the United States Food and Drug Administration, and several other organizations in the country to form a joint operations and investigation team. The team assisted the PMOH with various activities that included surveillance, an

epidemiologic investigation, and a public health information campaign. Within 8 days, the etiology of the outbreak was discovered; diethylene glycol contaminated cough syrup distributed to thousands of Panamanians. A nationwide medication recall was announced, and a national public health prevention campaign was launched to prevent further illness.

Outbreak of fentanyl-related deaths

The Wayne County Medical Examiners' Office noted a large increase in the number of fentanyl-related deaths in illicit drug users, beginning in late 2005 and continuing into early 2006. At the request of the Michigan State Department of Community Health, a medical toxicology fellow and an epidemiologist traveled to Wayne County, Michigan on May 22, 2006 to provide epidemiologic and toxicological assistance. The team reviewed medical examiners' records of deceased patients in order to provide a descriptive epidemiological assessment of fentanyl-related deaths among illicit drug users. Public health officials should institute new and augment existing efforts to increase awareness among drug users and health care professionals about the dangers of fentanyl and heroin use.

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Editor's Note: The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention or the Agency for Toxic Substances and Disease Registry.