

Thinking the Unthinkable: Responding to Bioterrorism

By Robin Suits

James Brown, M.D., assistant professor of emergency medicine, has been teaching health care professionals about weapons of mass destruction for many years. A paramedic with the Jefferson County Police Department in Louisville, Kentucky, for a several years before entering medical school in 1987, he has been interested in developing systems for coping with disasters for most of his adult life. Since September 11, 2001, he's seen concern about the subject increase exponentially.

"I used to spend the first 15 minutes of my lectures scaring the daylights out of people," he says. "I used about 15 slides at the beginning to show what people should be concerned about. I don't have to do that anymore. When I gave a recent grand rounds on bioterrorism, I only had to use two. The first shows the Statue of Liberty with the Twin Towers behind it; the other shows the Statue of Liberty without the Twin Towers behind it. Who's not scared by that?"

Dr. Brown is one of several emergency medicine faculty participating in a regional Bioterrorism Task Force created after the terrorist

attacks. Coordinated by the Greater Dayton Area Hospital Association, the group brings together organizations involved in disaster planning and response to jointly prepare for a potential terrorist attack. The task force issued public service announcements about anthrax and plans to issue fact sheets on other concerns related to bioterrorism if the need arises.

"Our emergency response systems—911, police, fire, and emergency departments—have received hundreds of calls and visits from citizens who were concerned they might have been exposed to anthrax," says Glenn Hamilton, M.D., professor and chair of emergency medicine. "We want the public to remain alert and aware, but not unduly fearful."

Specific anthrax information for physicians is being developed, he says. The Department of Emergency Medicine is also developing continuing medical education courses for area physicians. It held a symposium in late December with the goal "to prepare physicians to evaluate and treat patients exposed to nuclear, biologic, or chemical agents in a mass casualty scenario."

Mark Gebhart, M.D., assistant professor of emergency medicine and president of the Greater Miami Valley EMS Council, says anthrax hoaxes have adversely affected many more people than has the disease. As medical director of the Kettering Fire Department, he responded to a situation in which "a disgruntled employee poured Comet on the floor." The reactions from some coworkers afraid of anthrax caused the only real havoc there, he says.

Dr. Gebhart was a paramedic with the Kettering Fire Department before entering WSU School of Medicine in 1993, and his interest in preparation for disaster has been long term. Now a deputy fire chief for Kettering, he says he's far more concerned about other biological agents than he is about anthrax.

"One case of smallpox would become an epidemic," he says. Small pox is highly contagious, untreatable and fatal about 30 percent of the time. Those preparing for bioterror have had to wrestle with difficult issues like when and how to quarantine people in a case involving a biologic

agent like smallpox. The most likely bioweapon is probably the plague, according to Drs. Gebhart and Brown.

Drs. Brown and Gebhart and others from emergency medicine participated in a Weapons of Mass Destruction Terrorism exercise conducted in August 2001. As one of 126 cities selected by the Defense Department for such training, Dayton brought together personnel from area fire departments, law enforcement agencies, hospitals, and emergency management agencies for the event.

“We set up this large scale, simulated chemical attack at a basketball game at the University of Dayton arena,” explains Dr. Brown, who says most experts at the time thought chemical weapons were more likely than biological weapons. “They put ads in the paper asking for people to be casualties, and about 150 people volunteered. We set up decontamination systems and transported ‘victims’ to the hospitals. Several hospitals in the area used the event as a disaster drill.”

The exercise helped identify strengths and weaknesses in the community’s

preparedness, Dr. Brown says. “We figured out that it’s very important that a physician be one of the first on the scene of a terrorist incident.” They are needed to quickly identify possible toxic agents and coordinate medical treatment for victims.

“We’re setting up a physician response unit with some faculty from emergency medicine who could respond to a major disaster.” Among those involved in the discussions is Randy Marriott, M.D.('91), a clinical assistant professor of emergency medicine and Dayton Fire Department medical director. He and medical school classmate, Timothy Manuel, M.D., are members of a federal Urban Search and Rescue Team that responded to the terrorist attacks in New York.

“Our community is as ready for a terrorist attack as anybody can be,” Dr. Brown notes.

“We’ve made great strides and we’re certainly much better off than we were before September 11. But, how can you ever really be ready for something like what happened that day?”