

EMERGENCY DEPARTMENT RESPONSE TO HAZARDOUS MATERIALS INCIDENTS

Mark A. Kirk, MD, James Cisek, MD, FACEP,
and S. Rutherford Rose, PharmD

Emergency physicians respond to many critical situations with confidence. A toxic chemical accident bringing one or hundreds of victims to the emergency department (ED) will be a unique situation for most emergency physicians. Preparation is important not only for a victim's outcome but also for the safety of hospital personnel. Most emergency care providers (prehospital or hospital-based) rush to aid victims without thinking of the potential danger to themselves. Treating victims of toxic chemical accidents requires stepping back and assessing the situation before acting; otherwise, the would-be rescuer may become a victim. Fire Services and Emergency Medical Services (EMS) have surpassed hospital personnel in educating and training themselves to respond appropriately to toxic chemical accidents. Unfortunately, this makes the hospital response to a toxic chemical accident one of the weakest links in a community's response. Are the emergency physician and the ED really prepared to confidently handle patients exposed to toxic chemicals?

Unfortunately, many hospital mass casualty incident (MCI) plans are complex, untested documents intended to meet certification requirements. Often these plans do not even consider the response to a hazardous materials (Haz-Mat) incident. Most commonly, MCI plans are written to respond to incidents where traumatic injuries are common, such as plane crashes. Many hospital MCI plans will not be adaptable to Haz-Mat incidents because evaluation and treatment of chemically contaminated patients is not routine. In Haz-Mat incidents, the causative agent(s) may not be identified, and the pathophysiology is less familiar. Treatments, such as administering extremely large doses of atropine for organophosphate poisoning, may be unfamiliar and unconventional. Additional

From the Department of Emergency Medicine (MAK, SRR), Carolinas Medical Center, Charlotte, North Carolina; and the Department of Emergency Medicine, Wayne State University, Detroit, Michigan (JC)

EMERGENCY MEDICINE CLINICS OF NORTH AMERICA
