A Critical Crash Course in Chemical Decontamination

Author: Efrain E. Garcia, Ph.D., Health Scientist, Division of CBRN Countermeasures, Biomedical Advanced Research and Development Authority, HHS Office of the Assistant Secretary for Preparedness & Response
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What EMS Professionals Need to Know about Mass Chemical Decontamination

In communities across the country, people rely on Emergency Medical Services (EMS) professionals to make quick, life-saving decisions. Becoming an EMS professional takes years of training that you can directly apply during most disasters and emergencies, such as hurricanes, floods and earthquakes.

However, do you know how to effectively decontaminate yourself or patients following a chemical event?

Straightforward Guidance to Help Save Lives

Decontaminating people after a chemical event is simpler than you might think. According to the Primary Response Incident Scene Management (PRISM), the first evidence-based guidance on patient decontamination, first responders can help people remove up to 99.9 percent of chemical contamination using a method called the triple protocol consisting of:

- Disrobing and Dry Decontamination
  Self-Care with Guidance
- Ladder Pipe System
  First Responders Using Fire Trucks
- Technical Decontamination
  Specialists Using Decontamination Units

The triple protocol approach to decontamination is faster and more effective than traditional methods for treating chemically contaminated patients.

In fact, dry decontamination alone can remove up to 99 percent of contamination, if the people who have been contaminated follow these six steps:
Planning and Practicing with Partners

Though these steps are simple to understand, decontamination operations are challenging. The good news is that disrobing and dry decontamination are steps that people can take themselves with guidance from you, the first responder. However, you need to understand the protocols, incorporate them into your emergency operations plans, and practice them. By providing you with training in advance, you will be better prepared to provide clear instructions, equipment, and support when seconds count.

Responding to a chemical emergency has unique challenges. You, as a responder, need to be ready to convince the people in their communities – who will likely be scared, confused, or stressed – that disrobing, listening, and following instructions could help save their lives. You and your EMS colleagues may need to help with that process by cutting off clothing or providing foil blankets to help alleviate privacy concerns. You may have to be ready to help evacuate patients or, if that is not possible, shelter in place effectively. After disrobing, dry, ladder pipe system, and technical decontamination, you will need to move patients who are unresponsive or have life-threatening injuries to a hospital.

Before a chemical emergency, work with partners in your community to incorporate chemical decontamination into your emergency operations plans, so you are ready to work together effectively in an emergency.

Tool to Help Tailor Response Operations

When you are responding to a chemical event, wet decontamination may or may not be necessary after dry decontamination, depending on the chemical agent and the amount of time that has elapsed between exposure and decontamination. The ASPIRE tool is a decision-making aid that can help responders like you make better decisions based on the details of the emergency they are facing. ASPIRE and the PRISM guidance have been incorporated into CHEMM, the Chemical Hazards Emergency Medical Management web-based resource that includes a suite of preparedness and emergency response tools. You can also find ASPIRE in WISER (Wireless Information System for Emergency Responders).

EMS professionals are often the first on the scene, and are called on every day to make complex decisions to help save lives in the communities they serve. During EMS week, take some time to learn how you and your team can help protect the people in your community in the event of a chemical emergency and be ready to use evidence-based guidance and your organization’s plans to make life-saving decisions. To learn more about mass decontamination and the triple protocol, check out the newly updated PRISM guidance.

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