

Jane's

CHEM-BIO HANDBOOK



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Frederick R. Sidell, M.D.

William C. Patrick, III

Thomas R. Dashiell

Jane's Information Group

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Tel: 703-683-3700; Fax: 703-836-0029; E-Mail: info@janes.com

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Garry Briese, Executive Director, International Association of Fire Chiefs

Major Katie Carr, US Army Medical Research & Materiel Command

Lt. Col. Ted Cieslak, MD, Operational Medicine Division, USAMRIID

Lt. Col. Arthur Corbett, Commander, US Marine Corps Chemical-Biological Incident Response Force (CBIRF) and the CBIRF staff

Col. Edward Eitzen, MD, Chief of Operational Medicine Division, USAMRIID

Dr. Scott R. Lillibridge, Centers for Disease Control

Robert D. Paulison, Fire Chief, Miami Dade Fire Rescue

Major Julie Pavlin, MD, Operational Medicine Division, USAMRIID

Col. Rasa Silenas, Chief, Disaster Preparedness, 59th Medical Wing, US Air Force

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ON-SCENE PROCEDURES

These procedures are designed for use in incidents where chemical or biological weapons may be involved. Procedures are broken into the following sections:

Tab: On-Scene Procedures

- **Initial Discovery Procedures** — *p. 10*
- **Agent Indicator Matrix** — *p. 14*
- **Gross Decontamination Procedures** — *p. 18*
- **Personal (Self) Decontamination Procedures** — *p. 20*
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- **Equipment Decontamination Procedures** — *p. 46*
- **Decontamination Pointers** — *p. 50*

☞ Since the exact procedures for decontamination vary by locality, the following procedures are provided only as a general guide. First responders should be knowledgeable about the exact procedures in their area.

1. Initial Discovery Procedures

Initial First Responders on the Scene

This checklist is to be used after receiving a call indicating a chemical or biological weapons incident, or when indicators of chemical or biological agents are present.

☞ **Beware of possible secondary devices** – either explosive or chem-bio. **Extreme caution** is warranted at all times to prevent additional casualties.

☞ **Immediately initiate** Personal (Self) Decontamination Procedures (*p. 20*) at anytime, if you believe you have been contaminated.

☞ **Beware of victims** — some victims may become agitated and fearful and may attempt to either leave the exclusion zone or approach, or even contact, rescue personnel. Victims must be contained if risk of further contamination is to be prevented.

Initial Discovery Procedures

1.	Remain calm.
2.	While approaching the scene, put on personal protective equipment (PPE) . This should be Level A, unless directed otherwise.
3.	If already at the scene, immediately retreat to a safe location and put on Level A PPE.
4.	To maintain a safe location:
4.a.	Stay upwind;
4.b.	Stay uphill;
4.c.	If there is a visible cloud, stay well clear of it (<i>Note:</i> Most chemical and biological agents do not produce a visible cloud);
4.d.	Keep a safe distance from scene:
	Even if PPE is available, stay 75 feet (25 meters) from mishap, until the agent and its concentration are identified.
	If PPE is not available, keep a minimum distance of 300 feet (90 meters), or double the safe distance with PPE, whichever is greater.
5.	If PPE was not put on, do so now.
6.	Initiate the Incident Command System (ICS) or Incident Management System (IMS) as appropriate.

Initial Discovery Procedures (*continued*)

7.	If possible, determine the agent type using the Agent Indicator Matrix (<i>p. 14</i>)
7.a.	If chemical agent type can be determined, refer to Chemical Effects section for more details (<i>p. 53</i>). Remember that some chemical agents do not begin to cause symptoms until hours or days later.
7.b.	If agent is determined to be biological, exercise extreme caution and avoid contact. Do not attempt to identify agent further - agent can only be identified by qualified medical personnel. Remember that biological agents do not begin to cause symptoms until hour or days later.
8.	Observe Notification Essentials and make reports to appropriate Fire, Police and Medical authorities.
8.a.	Indicate any of the following:
	Observed CW/BW indicators (<i>see inside covers</i>);
	Wind direction and weather conditions at scene;
	Plume direction (direction of cloud or vapor travel). [<i>Note: Usually, a chemical or biological cloud is not visible.</i>];
	Orientation of victims (direction, position, pattern);
	Number of apparent victims;
	Type of injuries, symptoms presented (as visible from a safe distance);