Engaging Healthcare Hazardous Materials Trainees

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Currently EnMagine President
- Founded EnMagine - one of the leading healthcare emergency management planning, training and exercising firms

Formerly
- Environmental Health and Safety Manager - Kaiser Permanente Sacramento Medical Center
- Safety Officer/ Oil Spill Response Program Manager - CA Conservation Corps
- SARA Title III Program Manager - CA Governor’s Office of Emergency Services
- Assistant Director Emergency Services, Emergency Medical Services Hazardous Materials/Waste - San Benito County CA
- VP - Donner Summit Public Utility District, Planning Commissioner - Nevada County CA, Professional Ski Patroller, Founder and Board Member - New Paltz (NY) Rescue Squad
- Other items of interest- Author CA Hazardous Materials Incident Contingency Plan, member FIRESCOPE ICS Hazardous Materials Working Group, HICS National Summit/Secondary Review Committee
Learning Objectives

• By the end of the session participants will be able to:
  – Identify how hazardous materials emergencies may impact a healthcare worker both personally and professionally
  – Recognize the threats and how hazardous materials emergencies may impact the healthcare organization
  – Recognize the threats and how hazardous materials emergencies may impact the community
The Problem

• Some attendees are willing, interested, engaged, and knowledgeable
• Others are unwilling, uninterested, unengaged, and/or unknowing sent to attend hazardous materials emergency training
The Question

• How can a training program engage healthcare workers so that:
  – They recognize the importance of the content
  – Their learning is maximized
  – They work more safely and effectively
The Answer

• Make it:
  – Real
  – Personal/Professional
  – Fun
What The Program Is

• A healthcare-centric hazardous materials emergency response training program
  – The Awareness module is an introductory course that contains an overview of hazardous materials in a healthcare environment
  – Addresses internal spills and contaminated victims/patients, including
    • SIN- Safety Isolate Notify
    • Directed Self-Decon
  – Defensive only
  – The basis of all future training
What the Program Is Not

• Neither a defensive response (Operations level) or offensive (Technician, Specialist)
• Does not require the use of personal protective equipment other than Standard Precautions
• A program that requires competency in manipulative skills
Standards and Best Practices

• Includes material required by OSHA pursuant to the:
  – Hazardous Waste Operations and Emergency Response standard (HAZWOPER- 1910.120(q)(6)(i) or state plan state equivalent) for the First Responder (Receiver) Awareness level

• And the Guidance document:
  – Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances
Who?

• **Individuals [healthcare workers]:**
  - Who are likely to witness or discover a hazardous substance release and
  - Who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release.

• They would take no further action beyond notifying the authorities of the release.

• First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas

From OSHA
What?

- An understanding of what hazardous substances are, and the risks associated with them in an incident.
- An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.
- The ability to recognize the presence of hazardous substances in an emergency. 1910.120(q)(6)(i)(D) The ability to identify the hazardous substances, if possible.
- An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.
- The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

From OSHA
**A Tiered Approach**

<table>
<thead>
<tr>
<th>Role</th>
<th>Training Time</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident Commander /Safety/ Technical Reference</td>
<td>8 hrs</td>
<td>24 hrs</td>
</tr>
<tr>
<td>First Responder-Operations employees expected to take defensive actions and conduct decontamination</td>
<td>12 hrs</td>
<td>40 hrs</td>
</tr>
<tr>
<td>First Responder Awareness- those employees that may encounter a hazardous materials emergency and/or conduct “directed self-decon.”</td>
<td>4 hours</td>
<td>16 hrs</td>
</tr>
<tr>
<td>Technician</td>
<td>16 hrs</td>
<td>40 hrs</td>
</tr>
<tr>
<td>Gatekeeper /Intervener</td>
<td>16 hrs</td>
<td>40 hrs</td>
</tr>
</tbody>
</table>

**Hazard Communication** - all employees
AND SO...
HazMat for Healthcare

An Awareness Level Course

Brought to you by

Paul@EnMagine.com (530) 622-5964
Haz Mat for Healthcare

An Awareness Level Course

An Awareness Program for Managing Hazardous Materials Emergencies Within Healthcare

Brought to you by Paul@EnMagine.com (530) 622-5964
But First (Activity)

• Who?
• What department and job?
• What do they want to get out of the class?
Who needs to take the **Awareness Level Course**?

Hospital personnel “who are likely to **witness or discover** a hazardous substance release and who have been trained to initiate an emergency response sequence by **notifying** the proper authorities of the release.”
But Second (Activity)

• Who (by job title) in the hospital would likely encounter someone who is contaminated and accessing the facility?
• What departments handle/use hazardous materials and are likely to witness or discover a hazardous materials spill?
Who needs to take the Operations Level Course?

Hospital personnel “who respond to a Haz Mat release as part of the initial response in a defensive action and contain the release from a safe distance.”
Regulations

The primary standard applicable to this program is called Hazardous Waste Operations and Emergency Response (HAZWOPER).

The Occupational Safety and Health Administration (or its state equivalent) has a mandate to ensure that employers provide a safe and healthful workplace.
Regulations (cont.)

Training categories in the Emergency Response section of the HAZWOPER Standard are:

- First Responder-Awareness
- First Responder-Operations
- Hazardous Materials Technician/Specialist
- Hazardous Materials On-Scene Commander
- Hazardous Materials Skilled Support Personnel
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- First Responder-Awareness
- First Responder-Operations
- Hazardous Materials Technician/Specialist
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Awareness Objectives

Define Hazardous Materials

Identify the risks and problems that can occur in Hazardous Materials Incidents.
Awareness Objectives

Recognize a Hazardous Materials Incident

Identify Characteristics of a Chemical
Awareness Objectives

Describe Safe and Effective Response

Understand How to Make Proper Notifications
Awareness Objectives

Describe How to Isolate the Scene and Deny Entry

Describe How to Conduct Directed Self-Decon
Understand the role of **Awareness Level** personnel in the overall response.
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Definition of a Hazardous Material

There is NO one definition.

**OSHA definition:**
Hazardous Chemical: Any substance to which exposure “results or may result in adverse affects on the health or safety of employees:” or “any chemical which is a physical hazard or a health hazard.”  
29 CFR 1910.1200 (c)
"Hazardous substance" means any substance designated or listed under (A) through (D) of this definition, exposure to which results or may result in adverse effects on the health or safety of employees:
What does the Regulation State?

"Hazardous substance" means any substance designated or listed under (A) through (D) of this definition, exposure to which results or may result in adverse effects on the health or safety of employees:

Any substance defined under section 101(14) of CERCLA;
What does the Regulation State?

"Hazardous substance" means any substance designated or listed under (A) through (D) of this definition, or may result in adverse effects on employees:

- Any substance defined under section 101(14) of CERCLA;

- Any biologic agent and other disease causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring.
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- Any substance listed by the U.S. Department of Transportation as hazardous materials under 49 CFR 172.101 and appendices; and
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- Hazardous waste as herein defined.
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Any Substance Posing an Adverse Effect on Health

Any CERCLA-Defined Substance

Any Biological or Disease Causing Agent

Any DOT-Defined Haz Mat Substance

Any Other Substance Defined in 29 CFR 1910.1200

IN OTHER WORDS...

Any Substance Posing an Adverse Effect on Health

Any CERCLA-Defined Substance

Any Biological or Disease Causing Agent

Any DOT-Defined Haz Mat Substance

Any Other Substance Defined in 29 CFR 1910.1200
Examples of Hazardous Materials

(OSHA Hazardous Waste Operations and Emergency Response Standard 29 CFR 1910.120 [Title 8 §5192 CCR])

- Chemicals That Cause Cancer
- Chemicals That Burn the Skin or Eyes on Contact
- Biohazards or Infectious Materials
- Radioactive Materials
Examples of Hazardous Materials
(OSHA Hazardous Waste Operations and Emergency Response
Standard 29 CFR 1910.120 [Title 8 §5192 CCR])

Chemicals That Catch Fire or Explode

Poisons

Chemicals That Can Cause Violent Chemical Reactions

Unknown Chemicals
Hazardous Materials in Hospitals

**Internal** incidents where the spill originates onsite and is limited to the facility.

**External** incidents that occur offsite and are brought to the hospital (either through a plume of hazardous material or by contaminated patients accessing the facility for treatment.)
But Third (Activity)

- Provide examples of internal event
- Provide examples of external incident
Activity

What are the Impacts of Hazardous Materials Incidents On...

- You
- Your Community
- The Hospital
- The Emergency Department
- Pre-Hospital Providers
• What are the impacts/concerns of a hazardous materials incident, both personally and professionally?
Basis For Success

The C’s

- Communication
- Coordination/Consideration
- Control
- Common Sense
Learning Objectives

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Why we plan!
The End!

Photo courtesy of Robert A, Eplett /oes.ca.

Photo by Robert Eplett
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