Agency for Toxic Substances & Disease Registry/American College of Medical Toxicology's

Chemical Weapons of Convenience/Opportunity Course

Harborview Medical Center (HMC)
Research and Training (R&T) Building Auditorium
Monday, November 22, 2004; 7:30 a.m. – 4:00 p.m.

Overview:
The horrible tragedy, which resulted when terrorist crashed a hijacked commercial airliner into the World Trade Center on September 11, 2001, demonstrated the lethal potential and our tremendous vulnerability to weapons of convenience or opportunity (WOC/O). Many now believe that terrorist attacks in the US are more likely to involve WOC/O than conventional nuclear, biological or chemical warfare agents. This one day course provides an awareness-level training of the potential medical and psychological consequences of chemical WOC/O. WOC/O may be toxic industrial chemicals (TICs), toxic industrial materials (TIMs), agricultural chemicals or other locally stored chemicals, which may be used by terrorists against our community. An understanding of the hazards and vulnerabilities to WOC/O agents is essential for adequate emergency preparedness. Conventional nuclear, biological or chemical warfare agents will not be included in this course.

Sponsors:

1. American College of Medical Toxicology (ACMT)
2. Agency for Toxic Substances and Disease Registry (ATSDR)
3. Environmental Protection Agency (EPA)
4. Emergency Medicine Division, University of Washington School of Medicine
5. Northwest Pediatric Environmental Health Specialty Unit (NW PEHSU)
6. Seattle Fire Department (SFD)
7. Washington Poison Center (WPC)
8. Safety and Supply Company
9. Dupont Personal Protection
10. Industrial Scientific Corporation
11. Fisher Scientific

Course Objectives:
After attending the Chemical Weapons of Convenience/Opportunity Course, participants will be able to review the potential routes of exposures to WOC/O, and identify the major medical effects of WOC/O. Following this course participants will be able to discuss the psychological impact of toxic and perceived WOC/O exposures, and review the role of regional poison centers and medical toxicologists in WOC/O and hazmat incidents. In addition, participants will be able to apply EPA Risk Management Plan (RMP) data to assess local chemical hazards and vulnerabilities.

Target Audience:
The information presented will be valuable to professionals involved in chemical terrorism preparation and response including emergency response and on scene coordinators, first responders (fire, EMT, HazMat, paramedic team members), first receivers (emergency department care providers), hospital emergency preparedness staff, occupational medicine care providers, public health officials, law enforcement agencies, administrative agencies, toxicologists and industrial hygienists.

Course Agenda:
7:30-8:00 **Registration**

8:00-8:30 **Welcome & Opening Remarks**
Thomas G. Martin, MD, MPH, FACMT, FAACT, FACEP
An introduction of the concepts of Weapons of Convenience/Opportunity (WOC/O), TICs and TIMs, the sponsoring organizations and speakers for this session. An overview of the role of poison centers and medical toxicologists in WOC/O and hazmat incidents.

8:30-9:15 **Toxic Warfare: Looking Beyond Conventional Chemical Weapons**
Zane Horowitz, MD, FACMT
This talk will provide an overview of toxic warfare, describe emerging "less than lethal" technologies, and discuss current hypotheses regarding the 2002 Moscow Theatre event.

9:15-10:00 **Toxic Gases in your Community**
Robert G. Hendrickson, MD
Chemical compounds are produced in massive quantities as part of America's industrial complex. Many of these compounds are amenable to use as large scale terrorist weapons. This talk will address a number of chemicals, such as phosgene, chlorine, and anhydrous ammonia, which can be disseminated as inhalational threats. Their manifestations, treatment, and sources in the community will be discussed.

10:00-10:15 Break

10:15-11:00 **Why Are Cyanide and Fumigants So Worrisome**
Mohamud R. Daya MD, MS, FACEP, FACMT, DTM&H
Of the numerous poisons that impair cellular respiration, cyanide is probably the most likely to be used in a chemical terrorism event, given its availability and the ease with which it can be generated. Cyanide and fumigants such as methyl bromide, sulfuryl fluoride, chloropicrin and the phosphides are among the most toxic TICs.

11:00-11:45 **Assessing Hazards and Vulnerability to WOC/O in Your Community**
Thomas G. Martin, MD, MPH, FACMT, FAACT, FACEP
This talk will discuss the use of US EPA mandated SARA Title III Tier I & II reports and Risk Management Plans (RMP) with Off-site Consequence Assessment (OCA) of worse and alternate (more likely) case scenarios in emergency preparedness for industry, communities and vulnerable receptacles (schools, day care, nursing homes, hospitals, etc.)

11:45-12:45 Lunch

12:45-1:30 **Food and Water as Vehicles for WOC/O Attacks**
Robert L. Norton, MD
This presentation will cover the vulnerability of the food and water supply as a vehicle for chemical terrorism. Specific groups of toxicants such as solvents, pesticides and natural toxins and their characteristics that make them potential toxic threats when consumed will be discussed.

1:30-2:15 **Terrorism by Fear and Uncertainty**
Dana B. Mirkin, MD
This talk will cover the clinical presentations of individuals or groups exposed to agents with long latency (e.g. metals). The toxicity of metals such as thallium and the organomercurials, and of halogenated hydrocarbons like PCBs, PBBs and dioxins, will be discussed with particular reference to how poisoning with these agents presents and how delay in symptom onset complicates response to potential incidents of toxic terrorism.

2:15-2:30 Break

2:30-3:15 **Toxic Caustics as WOC/O**
Thomas G. Martin, MD, MPH, FACMT, FAACT, FACEP
The toxic effects of caustic exposures are usually the result of unintentional or accidental exposures. This will cover the use of caustic and the special group of "toxic caustics" as WOC/O against key governmental or political individuals in the community as well as a mass casualty threat.

3:15-4:00 **Psychological Impact of WOC/O Attacks**
William Hurley, MD
Analysis of previous incidents demonstrates that large numbers of patients with psychological distress will impact the emergency response and potentially overwhelm the health care system. It is often difficult to differentiate between symptoms due to psychological harm from those due to physical harm. This talk could provide insight into individual and mass psychological responses to terrorist incidents.

Continuing Medical Education Credits Fee:
A $50 check will be required from physicians requesting 6.5 hr AMA Category I CME credits.

Registration Cost:
No charge to registered participants including free box lunch if order at time of registration.

Online Registration and Box Lunch Selection:
http://www.trainex.org/classdetails.cfm?courseid=370&classid=2368
Online Registration will close on Wednesday November 17, 2004 or sooner if the maximum number of participants and speakers (180) is reached.

Venue :
HMC R&T Building Auditorium, 325 Ninth Avenue, Seattle, WA 98104

Map:
http://www.uwmedicine.org/Global/Maps/HMCLarge.htm

Driving Directions to HMC, Parking and Bus Info:
http://www.uwmedicine.org/Global/Maps/MapHMC.htm

Course Planning Committee:
Thomas G. Martin, MD, MPH, FACEP[1,3,5,6,8]; Captain Andrew C. Stevermer[2]; Captain Charles O. Cordova[7], Jeffry Rodin[4], Kathleen Jobe, MD[3,5]

About the Agency for Toxic Substances and Disease Registry (ATSDR)/American College of Medical Toxicology (ACMT) Network
ACMT is the major professional (nonprofit) organization of physicians specializing in medical toxicology in the United States. In 1999 ACMT entered into a 5-year cooperative agreement with ATSDR under the auspices of Program Announcement 99081: Program to Build Capacity to Conduct Environmental Health Promotion Activities. This agreement was designed, in part, to enhance educational outreach to heath care professionals on issues pertaining to environmental toxicology. Recognizing the urgent need to improve the capacity of health professionals and public health officials to respond knowledgeably and effectively to chemical terrorism and related mass chemical exposure, the ACMT – ATSDR partnership has considerably expanded during the past year. A national network now links medical toxicologists across the country with the 10 ATSDR regional offices. As part of this growing partnership, ACMT has organized this intensive one-day training course on the medical and psychological consequences from chemical terrorism and mass chemical exposures to weapons of convenience/ opportunity.

Speakers:
Mohamud R. Daya MD, MS, FACEP, FACMT, DTM&H
Associate Professor of Emergency Medicine OHSU
Medical Director, Tualatin Valley Fire & Rescue
Medical Consultant, Oregon Poison Center

Robert G. Hendrickson, MD
Assistant Professor, Department of Emergency Medicine, OHSU; Medical Consultant, Oregon Poison Center; Emergency Preparedness Liaison, OHSU; Chair, Emergency Preparedness Committee, OHSU; Member, Oregon State Health Preparedness Advisory Committee

B. Zane Horowitz, M.D., FACMT
Professor, Department of Emergency Medicine, OHSU; Medical Director, Oregon-Alaska Poison Center, Portland, OR

William Hurley, MD
Associate Director, Washington Poison Center; Emergency Department Director: St. Peter's Hospital, Olympia, WA.

Thomas G. Martin, MD, MPH, FACMT, FACEP, FAACT
Associate Professor of Medicine UWSOM; Director: UW-TOX (medical toxicology service); Associate Medical Director: Washington Poison Center; Consultant: NW Pediatric Environmental Health Specialty Unit and Seattle/King County Health Department

Dana B. Mirkin, MD
Medical Director: Willamette Falls Occupational Health, Willamette Falls Hospital; Consultant and boarded in occupational medicine and medical toxicology; Former Regional Medical Advisor for British Petroleum in North America

Robert L. Norton, MD, FACMT, FACEP
Professor of Emergency Medicine and Surgery Oregon Health & Science University Medical Toxicology Consultant: Oregon Poison Center

Revised 11/19/2004