

Medical Management of Chemical and Biological Casualties Course

Sponsored By
U.S. Army Medical Command

Activity ID
2009-0054

Course Director
Charles G. Hurst, M.D.

Planner
Sharon Key

Activity Date
3/15/2009 - 3/20/2009

Location
ICD, RIID
Aberdeen Proving Ground, MD

General Continuing Medical Education Information

Accreditation Statement

The U.S. Army Medical Command is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Credit Designation

The U.S. Army Medical Command designates this educational activity for a maximum of up to **45 AMA PRA Category 1 Credit(s)[™]**. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Statement of Need/Gap Analysis

The purpose of this CME activity is to address the identified gap(s):

- * 1) Medical providers must be able to differentiate signs and symptoms of chemical and biological agents.
- * 2) Medical providers must be able to supervise and delegate resources during the patient decontamination process.
- * 3) Medical providers must be able to identify and appropriately treat patients exposed to chemical and biological agents based on diagnosis.

Learning Objectives

1. Chemical: Given case studies pertaining to chemical agents and properties, determine the physical states of agents, exposure, absorption, persistence, and toxicity; the four major classes of chemical agents; individual and group protection with respect to their roles in the medical response to a chemical agent threat, adverse consequences of PPE; concept of triage; NATO definition of chemical agents and the relative importance of persistent vs. nonpersistent agents.
2. Biological: Given multimedia information on medical management of biological casualties and clinical case studies, identify the potential biological agents, the clinical effects of the agents, the therapeutic interventions in both a medical center and a field environment, the methods of handling contaminated and noncontaminated casualties in a field environment or a fixed medical facility, and the historical aspects of biological agent use in warfare (to include the identification of biological agent capabilities present in the work today and in the near future).

Intended Audience

The course is designed for Medical Corps and Nurse Corps officers, physician assistants, Medical Service Corps officers in specialties 67B, C, or E, and other selected medical professionals. Classroom instruction, laboratory and field exercises prepare graduates to effectively manage casualties of chemical and biological agent exposure.

Policy on Disclosure

As a sponsor accredited by the ACCME, it is the policy of the U.S. Army Medical Command to require the disclosure of the existence of any significant financial interest or any other relationship a faculty member or a sponsor has with the manufacturer(s) of any commercial product(s) discussed in an educational presentation. Detailed disclosure will be made in the course syllabus/handout materials.

**** The U.S. Army Medical Command supports the Americans with Disabilities Act. Please contact the Course Administrator for any special request ****

Acknowledgment of Commercial Support

There is no commercial support associated with this educational activity.

Agenda

PRESENTATION TITLE

DATE/TIME

Course Overview (Charles Hurst)

3/15/2009 08:30-09:10

Pre-Exam (Thomas Talbot)

3/15/2009 09:10-09:30

History of the Medical Aspects of Chemical Warfare (Charles Hurst)

3/15/2009 09:40-10:40

Current Relevance of Chemical Casualty Care (Beverly Maliner)

3/15/2009 10:40-00:00

Pulmonary Agents (Thomas Talbot)

3/15/2009 11:45-00:00

Cyanide (Thomas Talbot)

3/15/2009 13:40-00:00

Nerve Agents and Pretreatment (Jonathan Newmark)

3/15/2009 14:40-00:00

MOPP Issue and Fitting (Nicholas Rogers)

3/15/2009 16:00-00:00

Chem Squares (John Alzamora)

3/15/2009 17:00-00:00

Chem Squares (Charles Hurst)

3/15/2009 17:00-00:00

Primate Lab Introduction and Exercise (Shannon Stutler)

3/16/2009 08:00-00:00

Vesicants (Charles Hurst)

3/16/2009 09:30-00:00

Principles of Decontamination (Laukton Rimpel)

3/16/2009 11:00-00:00

Overview of New Developments in Chemical Casualty Care (Harry Slife)

3/16/2009 11:55-00:00

Incapacitating and Riot Control Agents (Charles Hurst)

3/16/2009 13:10-00:00

PPE and Chemical Detection (Dan Boehm)

3/16/2009 14:30-00:00

M40A1 Mask Operation/Chemical Agent Attack Response (Nicholas Rogers)

3/16/2009 15:20-00:00

Hot Seat/Review (Thomas Talbot)

3/16/2009 17:05-00:00

Field Management and Triage/Chemical Case Studies (Thomas Talbot)

3/17/2009 08:00-00:00

Introduction to the Field Exercise (Dan Boehm)

3/17/2009 09:30-00:00

MOPP Donning in the Field (Laukton Rimpel)

3/17/2009 10:00-00:00

Field Training Exercise (FTX) (Dan Boehm)

3/17/2009 10:30-00:00

Casualty Assessment Discussion (Thomas Talbot)

3/17/2009 14:15-00:00

Informatics in Chemical Casualty Care (Nicholas Rogers)

3/17/2009 15:30-00:00

Informatics in Chemical Casualty Care (Dan Boehm)

3/17/2009 15:30-00:00

Informatics in Chemical Casualty Care (John Alzamora)

3/17/2009 15:30-00:00

Hot Seat/Review (Thomas Talbot)

3/17/2009 16:15-00:00

Take Home Exam Review / Closing Remarks (Charles Hurst)

3/17/2009 16:45-00:00

Welcome & USAMRIID Role in Biological Defense (Mark Kortepeter)

3/18/2009 08:00-00:00

Introduction to Biological Warfare/Terrorism & Threat (Zygmunt Dembek)

3/18/2009 08:30-00:00

Bacterial Threat - Brucellosis, Q Fever & Burkholderia spp (George Christopher)

3/18/2009 11:05-00:00

Bacterial Threat - Tularemia (Zygmunt Dembek)
3/18/2009 13:05-00:00

Bacterial Threat - Plague (Zygmunt Dembek)
3/18/2009 13:55-00:00

Food & Waterborne Bioterrorism & Agro Terrorism (Zygmunt Dembek)
3/18/2009 14:50-00:00

Laboratory Identification of BioWarfare & Terrorism Agents (Jeanne Geyer)
3/18/2009 15:45-00:00

FIBWA Presentation (Richard Arestad)
3/19/2009 07:45-00:00

Case Presentations: Bacterial Agents (Mark Kortepeter)
3/19/2009 09:00-00:00

Viral Threat - Smallpox & Smallpox Vaccine (James Lawler)
3/19/2009 10:05-00:00

Viral Threat - Venezuelan Equine Encephalitis (Keith Steele)
3/19/2009 11:40-00:00

Tour of USAMRIID & AIT/Slammer Presentation (Thomas Robinson)
3/19/2009 13:15-00:00

Tour of USAMRIID & AIT/Slammer Presentation (Brett Taylor)
3/19/2009 13:15-00:00

Viral Threat: Hemorrhagic Fever Viruses (Derron Alves)
3/19/2009 14:20-00:00

Toxin Threat - Bot tox, Staph, Ricin, Mycotoxins (Mark Poli)
3/19/2009 15:30-00:00

Case Presentations: Toxin & Viral Agents (Zygmunt Dembek)
3/19/2009 16:40-00:00

Case Presentations: Toxin & Viral Agents (BRYONY SOLTIS)
3/19/2009 16:40-00:00

Principles of Biological Warfare (William Patrick)
3/20/2009 07:45-00:00

Biological Weapons (William Patrick)
3/20/2009 09:00-00:00

Epidemiology of Biological Terrorism (Zygmunt Dembek)
3/20/2009 10:25-00:00

Psychological Effects of Biowarfare (Ross Pastel)
3/20/2009 11:30-00:00

Plague Fighter Video (Zygmunt Dembek)
3/20/2009 13:30-00:00

Medical Management of Biological Casualties (BRYONY SOLTIS)
3/20/2009 14:35-00:00

Case Presentations: Diagnosis & Management (BRYONY SOLTIS)
3/20/2009 15:45-00:00

Bio Test Review (BRYONY SOLTIS)
3/20/2009 16:55-00:00

Post-Exam Review (BRYONY SOLTIS)
3/20/2009 17:15-00:00

Post-Exam Review (Zygmunt Dembek)
3/20/2009 17:15-00:00

Faculty Presenters

Derron Alves DVM, DACVP

Dr. Alves is a board certified veterinarian. He is currently on staff at U.S. Army Medical Research Institute of Infectious Diseases and specializes in viral studies.

John Alzamora

Mr. Alzamora is currently a staff member at U.S. Army Medical Research Institute of Chemical Defense. He is the Chemical Casualty Care Division's information technician.

Richard Arestad

Operations Manager for the 520th Theater Army Medical Laboratory & responsible for Field Identification of Biological Warfare Agents training program. Serves as subject matter expert for the Theater Army Medical Laboratory Molecular Biology Squad and is responsible for their data quality control.

Dan Boehm

EMT/Paramedic. Facilitates all equipment for MCBC/FCBC/HM-CBRNE/CBRNE in house and off site courses. In charge of coordinating all off site courses relating to personnel, budget, equipment, books/materials.

George Christopher MC

Instructor

Zygmunt Dembek PhD,MS,MPH

Epidemiology, Infectious Diseases, Antibiotic resistance, Foodborne disease, Tularemia, Botulism

Jeanne Geyer PhD

Chief, Principle Investigator for USAMRIID's, Systems Development Branch & Diagnostic Systems Division. Specializes in Genetics and Molecular Biology.

Charles Hurst M.D.

Dr. Hurst is board certified in dermatology. He is chief of the Chemical Casualty Care Division. He also retains a part-time dermatology practice at the Pentagon Health Clinic.

Mark Kortepeter MD

COL Kortepeter completed his residency in Internal Medicine at TAMC. He was a Staff Internist at Fort Bragg. He completed his MPH at Harvard. He is now an infectious Disease physician and Deputy Commander at USAMRIID.

James Lawler MD

Director for Biodefense Policy, Homeland Security Council, The White House Principle Investigator, Medical and Virology Divisions, USAMRIID. Assistant Professor of Medicine, Uniformed Services University of the Health Sciences; Attending Physician for Medicine and Infectious Diseases, National Naval Medical Center, Bethesda, MD.

Beverly Maliner D.O.

Dr. Maliner completed her Masters of Public Health and Residency in Occupational Medicine at the Uniformed Services University of the Health Sciences in Bethesda, MD from 1997-1999.

Jonathan Newmark MD

COL Newmark serves as deputy joint program executive officer for medical systems at the Joint Program Executive Office for Chemical/Biological Defense, as chemical casualty care consultant to the Army Surgeon General, staff neurologist at WRAMC, Washington, DC, and as associate professor of neurology at the USUHS, Bethesda, Maryland. He is also consultant to the Pentagon for NBC issues.

Ross Pastel PhD

LTC Pastel chaired and organized the International Conference on the Operational Impact of Psychological Casualties from Weapons of Mass Destruction in July, 2000. His assignments include: WRAIR, USASTCFE, Far East, Tokyo, Japan) and AFRRRI.

William Patrick III

Dr. Patrick is a former scientist of U.S. Army Medical Research Institute of Infectious Diseases. During his tenure he was the director of the Offensive Biological Program of the U.S. Government.

Mark Poli PhD

Dr. Poli has worked at the USAMRIID in the Toxicology Dept for 10 years. He completed his Post Doctoral work at Princeton. He is a Diplomat on the Amer. Bd of Toxicology. His research interests are Marine toxins and diagnostic development.

Laukton Rimpel

Mr. Rimpel is responsible for the planning & execution of FTXs for the management of chemical casualties by health care providers & first responders, performing moulage of casualties, supervise hotline operations & patient decontamination procedures.

Thomas Robinson

CPT Robinson is assigned to Medical Operations Division, USAMRIID. He is the OIC for DOD's only Aeromedical Isolation Team (AIT), which transports highly infectious patients using state of the art transport isolators. He has an extensive background in Emergency Nursing and Critical Care Nursing. He also completed the USAF's Flight Nurse Course, which is offered at Brooke City AFB, TX.

Nicholas Rogers

CCCD NCOIC. Assist all in-house courses, assuring that set-up, tear-down of equipment is complete for courses. Hand Receipt holder of the CCCD equipment list.

Harry Slife

COL Slife is the current commander for USAMRICD and holds a PhD in Biochemistry. He was the former Deputy Director of Laboratory Sciences, USACHPPM and former Chief, Pharmacology Division Chief at USAMRICD. Col Slife has a vast experience managing numerous Chemical and Biological research projects over the last 18 years.

BRYONY SOLTIS MD MPH

MAJ Soltis is a Preventive Medicine Officer assigned to the Operational Medicine Department, USAMRIID. She holds a MD and specialized in pediatrics & preventive medicine, along with a MPH. MAJ Soltis has vast experience with patient triage and treating biological casualties in an austere environment.

Keith Steele MD

COL Steele is the Chief, Pathology Division at USAMRIID. He holds a D.V.M. and a PhD in Molecular Pathology. He was assigned to Project Ebola in the Tai Jungle, Ivory Coast as a U.S. military liaison to the World Health Organization.

Shannon Stutler DVM

MAJ Stutler is Chief, Veterinary Medicine and Surgery Branch, USAMRICD. She has a D.V.M. and M.P.H., and specializes in laboratory animal medicine. MAJ Stutler is a subject matter expert on assessing signs and symptoms, triaging, and treating nerve agent casualties.

Thomas Talbot MD

MAJ Talbot is Chief, Operations & Education for the Chemical Casualty Care Division, USAMRICD. He holds a MD and specialized in pediatric medicine. He is a subject matter expert in Cyanide and nerve agent antidotes. MAJ Talbot is currently the Course Director for the HM-CBRNE course and chief of academic computing. His software development titles include Nerve Academy, SIMapse and the Cyanide Casualty Simulator.

Brett Taylor

Instructor

You may register for this activity at <https://apps.mods.army.mil/cmeweb/secured>. Click on "Activity Registration" from the menu on the left or click on "Instructions" for additional assistance. You may also contact the CME Planner, Sharon Key at Sharon.Key@amedd.army.mil or 410-436-2230.