PROGRAM IN COUNTER-TERRORISM MEDICINE

Program Description

BIDMC Fellowship in Disaster Medicine
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BIDMC Fellowship in Disaster Medicine
Program in Counter-Terrorism Medicine

Introduction

The fellowship in counter-terrorism medicine is a one-year fellowship utilizing our esteemed faculty, who collectively have over 150 years experience preparing for and responding to terrorist events at all levels of government, along with a dynamic curriculum, and rotations in Boston, Washington DC, and other training facilities across the country. Fellows will learn the unique aspects of mitigation, preparedness, and response to terrorist events, including the health service support considerations in the era of asymmetrical threats, and weapons of mass destruction. Fellows will also have access to the full curriculum of the BIDMC Fellowship in Disaster Medicine.

BIDMC Fellowship in Disaster Medicine is designed to provide qualified fellows the opportunity to develop an expertise in the related fields of Disaster Medicine (DM) and Emergency Management (EM). This is accomplished through didactic lectures, seminars, readings, goal-related research in a specific area of DM and EM, and participation in hospital-based, local, regional, national, and international Disaster Preparedness agencies and response organizations.

The Fellow will also complete fieldwork-related research resulting in a thesis or publication. Upon completion of this Fellowship, fellows will be skilled in all aspects of the disaster cycle and have the ability to assume a leadership role on the local, regional, federal, or international level in the area of Disaster Medicine and Emergency Management.
CORE CURRICULUM

COUNTER-TERRORISM MEDICINE: OPERATIONS

GENERAL COUNTER-TERRORISM MEDICINE
Introduction to Disaster Medicine and Emergency Management for Terrorist Attack
Public Health and Terrorist Attack
The Role of Emergency Medical Services in Terrorism Preparedness and Response
The Role of Hospitals in Terrorist Attack
Ethical Issues in the Provision of Emergency Medical Care in Multiple Casualty Incidents
Terrorism Response in the United States
Terrorism Response in Europe
Local Response to Terrorist Attack
State/Regional Response to Terrorist Attack
Selected Federal Disaster Response Agencies and Capabilities
Global Terrorism Response
Community Hazard Vulnerability Assessment
Informatics and Telemedicine in Disaster
Public Information Management in Terrorist Attack
Terrorism Mitigation
Terrorism Preparedness
Worker Health and Safety in the Response to Terrorist Attack

TERRORIST EVENT RESPONSE
Accidental versus Intentional Event
Crisis Leadership in Public Health Emergencies
The Incident Command System
Scene Safety in Terrorism Events
Needs Assessment in Terrorism Events
Operations and Logistics in Terrorism Events
Disaster Communications in Terrorism Events
Personal Protective Equipment
Management of Mass Fatalities from Terrorist Attack
Urban Search and Rescue in Terrorism Events
Triage in Terrorism Events
HIGH-THREAT TERRORIST EVENT RESPONSE
Lessons Learned from Recent Terrorist Attacks
The Psychology of Terrorism
Health Service Support Considerations in the Era of Asymmetric Threats
Integrated Response to Terrorist Attacks
Multimodality, Layered Attack
Active Shooter Events
Hostage Taking By Terrorists
Terrorism-Induced Civil Unrest and Rioting
Introduction to Explosions and Blasts
Suicide Bomber
Improvised Explosive Devices
Vehicle Borne Improvised Devices
Conventional Explosions at a Mass Gathering
Response to Nuclear Terrorist Attack
Dirty Bomb (Radiologic Dispersal Device) and Other Radiation Scenarios
General Approach to Chemical Attack
General Approach to Biologic Attack
Future Biologic and Chemical Weapons
Chemical, Biologic, and Nuclear Quarantine
Chemical Decontamination
Radiation Decontamination
Directed-Energy Weapons

OPERATIONAL MEDICINE IN A TERRORISM EVENT
Military Lessons Learned for Disaster Response
Integration of Law Enforcement and Military Resources with Emergency Response to Domestic Terrorist Events
Tactical EMS applications for Terrorism
Medicine Beyond the Barricade
Operational Rescue in Terrorist Attack
Operations Security, Site Security and Incident Response in Terrorist Attack
Medical Intelligence
Preventative Medicine for Responders in High Threat Environments
COUNTER-TERRORISM MEDICINE:
TREATMENT OF CASUALTIES

CBRNE: NUCLEAR/RADIATION TERRORISM EVENTS
Introduction to Nuclear/Radiologic Disasters
Nuclear Detonation
Radiation Event - Isolated Exposure
Radiation Event - Dispersed Exposure
Nuclear Power Plant Attack

CBRNE: CHEMICAL TERRORISM EVENTS
Introduction to Chemical Attacks
Nerve Agent Mass-Casualty Incidents
Vesicant Agent Attack
Respiratory Agent Attack
Cyanide Attack
Antimuscarinic Agent Attack
LSD, Other Indoles, and Phenylethylamine Derivative Attack
Opioid Agent Attack
Hydrofluoric Acid Attack
Riot-Control Agent Attack
Cholinergic Agent Attack (Nicotine, Epibatidine, and Anatoxin-A)
Anesthetic-Agent Attack

CBRNE: BIOTERRORISM EVENTS
Introduction to Biologic Agents and Bioterrorism
Bacillus Anthracis (Anthrax) Attack
Yersinia Pestis (Plague) Attack
Francisella Tularensis (Tularemia) Attack
Brucella Species (Brucellosis) Attack
Coxiella burnetii (Q Fever) Attack
Rickettsia prowazekii Attack (Typhus Fever)
Orientia tsutsugamushi (Scrub Typhus) Attack
Rickettsia rickettsii (Rocky Mountain Spotted Fever) Attack
Vibrio cholerae (Cholera) Attack
Shigella dysenteriae (Shigellosis) Attack
Salmonella Species (Salmonellosis) Attack
Salmonella typhi (Typhoid Fever) Attack
Burkholderia mallei (Glanders) Attack
Burkholderia pseudomallei (Melioidosis) Attack
Chlamydia psittaci (Psittacosis) Attack
Escherichia coli O157:H7 (Hemorrhagic E. Coli) Attack
Viral Encephalitides (Alphaviruses) Attack
Tick-Borne Encephalitis Virus Attack
Viral Hemorrhagic Fever Virus Attack - Arenaviruses
Viral Hemorrhagic Fever Attack - Bunya Virus
Viral Hemorrhagic Fever Attack - Filo Viruses
Viral Hemorrhagic Fever Attack - Flaviviruses
Chikungunya Virus Attack
Variola Major Virus (Smallpox) Attack
Influenza Virus Attack
Monkeypox Attack
Hantavirus Pulmonary Syndrome Attack
Henipavirus Attack (Hendra Virus Disease and Nipah Virus Encephalitis)
SARS-CoV and MERS Attack (Severe Acute Respiratory Syndrome)
Staphylococcal Enterotoxin B Attack
Clostridium botulinum Toxin (Botulism) Attack
Clostridium perfringens Toxin (Epsilon Toxin) Attack
Marine Toxin Attack
T-2 Toxin (Trichothecene Mycotoxins) Attack
Ricin Toxin from Ricinus communis (Castor Beans) Attack
Aflatoxin Attack (Aspergillus Species)
Coccidioides immitis Attack (Coccidioidomycosis)
Histoplasma capsulatum Attack (Histoplasmosis)
Cryptosporidium parvum Attack (Cryptosporidiosis)

CBRNE: BOMB/BLAST TERRORIST ATTACK
Explosions: Conventional
Rocket-Propelled Grenade Attack
Conventional Explosion at a Hospital
Conventional Explosion in a High-Rise Building
Conventional Explosion at a Nuclear Power Plant
Tunnel Explosion
Liquefied Natural Gas Tanker Truck Explosion
Petroleum Distillation/Processing Facility Explosion
CBRNE: BALLISTIC TERRORIST ATTACK
Gunshot Attack: Mass Casualties
Sniper Attack
Grenade and Pipe Bomb Attack

OTHER TERRORISM EVENTS
Aircraft Hijacking
Aircraft Crash into a High-Rise Building
Airliner Crash into a Nuclear Power Plant
Bomb Explosion at a Nuclear Waste Storage Facility
Intentional Contamination of Water Supplies
Food Supply Contamination
Attack at Mass Gatherings
Ecological Terrorism
Computer and Electronic Terrorism and EMS
VIP Care and Protective Medicine

MODULE 5: MODERN DAY THREATS / PANDEMICS
- Influenza: Preparation, Response, and Outcomes
- Ebola: Preparation, Response and Outcomes