EMERGENCY MEDICINE MILITARY UNIQUE CURRICULUM

The Emergency Medicine Military Unique Curriculum Panel developed an approach to address the Emergency Medicine curriculum for military programs which:

A. Concentrates on incorporating operational considerations into ongoing teaching activities
B. Identifies and catalogs modular training opportunities
C. Identifies and catalogs field training activities for residents
D. Identifies source documents which military residency faculty can use in preparing MUC presentations.

The panel identified the following Mission, Vision and Goals:

MISSION

To ensure graduates of Military Emergency Medicine Programs are fully prepared to function in operational roles as defined by the Services.

VISION

Graduating all Military Emergency Medicine Residents as "full up rounds" prepared for all contingencies.

GOALS

1. Establish a list of core reference materials which should be available to faculty at each military emergency medicine residency program.

2. To develop a list of modular training opportunities which are available to residents in Military Emergency Medicine residencies.

3. To identify topics in the emergency medicine core curriculum which relate to each Services readiness roles. These topics will include an "operational considerations" section when presented in the military emergency medicine core curriculum series.

4. To define topics and reference material on the concepts of operations for each Service's operational roles as introductory lecture material to set the stage for all other military unique materials included in the program.

5. To identify all operationally relevant elements of the Emergency Medicine core curriculum which should be taught to all military physicians.

6. To develop/modify laboratory training modules in military Emergency Medicine residencies to include operational scenarios, team training with representatives of all elements of the core operational units and the use of actual equipment packs.

This document addresses the first five goals. Goal six is an important component of a comprehensive program, but it exceeds the panels' charge.

Section I - Material from the Core Content for Emergency Medicine [*Ann Emerg Med 1997;* 29(6):792-811] -for which a "Military Unique Considerations" section should be included when presented in the core curriculum. Some topics have been added to include some military unique items (*e.g.*, smallpox)

A. Topics to receive additional emphasis during emergency medicine residencies
- 1.2. Hepatic disorders
  - 1.2.1. Hepatitis
    - 1.2.1.1. Viral
    - 1.2.1.2. Bacterial
    - 1.2.1.3. Parasitic
    - 1.2.1.4. Drug and toxin
    - 1.2.1.5. Alcoholic
    - 1.2.1.6. Prophylaxis
  - 1.2.5. Hepatic abscess
    - 1.2.5.1. Primary abscess
  - 1.6.4. Small bowel infectious disorders
    - 1.6.4.1. Viral
    - 1.6.4.2. Bacterial
    - 1.6.4.3. Parasitic
  - 1.7.4. Large bowel infectious disorders
    - 1.7.4.1. Viral
    - 1.7.4.2. Bacterial
    - 1.7.4.3. Parasitic
    - 1.7.4.4. Antibiotic-associated
- 3.2. Cutaneous infections
  - 3.2.1. Bacterial
  - 3.2.2. Fungal
  - 3.2.3. Parasitic
- 5.1. Emergencies due to barometric changes
  - 5.1.1. Acute gas embolism
  - 5.1.2. Decompression sickness
- 5.2. Submersion emergencies
  - 5.2.1. Near-drowning
  - 5.2.2. Cold-water immersion
- 5.4. High-altitude illness
  - 5.4.1. Acute mountain sickness
  - 5.4.2. High-altitude cerebral edema
  - 5.4.3. High-altitude pulmonary edema
- 5.5. Radiation injury
- 5.8. Temperature related illness/injury
  - 5.8.1. Heat
  - 5.8.2. Cold

5.8.2.1. Hypothermia
5.8.2.2. Frostbite
7.1. Hematologic disorders
7.1.2. Disseminated intravascular coagulation
7.3. Pancytopenia
7.5. Transfusions
7.5.1. Autotransfusions
7.5.2. Complications
7.5.3. Component therapy
7.5.4. Synthetic blood replacement
7.5.5. Indications for transfusion
8.8. Immune deficiency syndromes
8.6.3. Drug-related
8.6.4. Radiation-induced
8.6.5. Malnutrition
9.1. Systemic bacterial infections
9.1.1. Botulism
9.1.2. Gonococcal disease
9.1.3. Sepsis
9.1.4. Mycobacterial disease
9.1.5. Meningococcal disease
9.1.6. Plague
9.1.7. Tetanus
9.1.8. Toxic shock syndrome
9.1.9. Spirochetal disease
9.1.9.1. Lyme disease
9.1.9.2. Syphilis
9.1.12. Anthrax
9.1.13. Q fever
9.1.14. Tularemia
9.3. Systemic parasitic infections
9.3.1. Malaria
9.3.3. Leishminiasis
9.5. Systemic viral infections
9.5.11. Hemorrhagic fevers
9.5.12. Ebola
9.5.13. Smallpox
9.7. Prevention
9.7.1. Prophylaxis
9.7.2. Immunizations
12.1. Contraception
12.6. Uncomplicated delivery
12.7. Complicated delivery
16.7. Pulmonary irritants
16.7.1. Chemical exposure
16.7.3. Aspiration of gastric contents
16.10. Pulmonary infections
16.10.1. Bacterial
16.10.2. Fungal
16.10.3. Mycoplasma
16.10.4. Lung abscess
16.10.8. Tuberculosis
16.10.9. Viral

17.2. Drug and chemical classes
- 17.2.4. Anticholinergics and cholinergics
- 17.2.15. Caustic agents
  - 17.2.3. Nitrogen mustard
- 17.2.17. Respiratory decouplers
  - 17.2.17.1. Cyanogen chloride
  - 17.2.17.2. Hydrogen cyanide
  - 17.2.17.3. Hydrogen sulfide
- 17.2.24. Hydrocarbons
- 17.2.31. Irritant gasses
  - 17.2.31.1. Riot agents
  - 17.2.31.2. Chlorine
  - 17.2.31.3. Phosgene and diphosgene
- 17.2.32. Marine toxins
  - 17.2.32.1. Ciguatera
  - 17.2.32.2. Scromboid
- 17.2.43. Arsenicals
  - 17.2.43.2. Lewisite
- 17.2.44. Biological toxins
  - 17.2.44.1. Botulinum
  - 17.2.44.2. Ricin
  - 17.2.44.3. Staphylococcal
  - 17.2.44.4. Tricothecene

18.1. Principles of trauma care
- 18.1.1. Prehospital trauma care
- 18.1.2. Triage
- 18.1.6. Reassessment and monitoring
- 18.1.9. Consultation
- 18.1.10. Disposition
- 18.1.11. Injury prevention and control

18.3. Mechanisms of injury
- 18.3.1. Blunt
- 18.3.2. Penetrating
- 18.3.3. Kinematics
- 18.3.4. Primary blast injury

20.4. Administration
- 20.4.5. Equipment and supplies
- 20.4.6. Facility design
- 20.4.11. Personnel management
- 20.4.12. Public relations
- 20.4.14. Staffing requirements
- 20.4.16. Nursing practice
- 20.4.20. Infection control
- 20.4.21. Security

20.5. Ethics
- 20.5.1. Ethical principles
- 20.5.2. Professional relations
- 20.5.3. Life-sustaining treatment

20.13. Wellness
- 20.13.1. Maintenance of well-being
- 20.13.2. Stress management
- 20.13.3. Shift work
- 20.13.4. Physician impairment

21.2. Evacuation operations

21.3. Medic education
21.4. Disaster medicine

Section II. General topics from the emergency-medicine curriculum (mostly limited to third decimal place) necessary for all potentially deployable physicians in the Armed Services, regardless of specialty and assuming no humanitarian mission (*e.g.*, obstetrical problems)

1.2. Liver
    1.2.1. Hepatitis
1.5. Stomach
    1.5.2. Inflammatory disorders
    1.5.3. Peptic ulcer disease
1.6. Small bowel
    1.6.1. Motor abnormalities
    1.6.3. Inflammatory disorders (includes appendicitis)
    1.6.4. Infectious disorders
1.7. Large bowel
    1.7.4. Infectious disorders
1.8. Rectum and anus
    1.8.1. Structural disorders
2.5. Acquired diseases of the circulation
    2.5.2. Venous
2.10. Myocardial manifestations of systemic problems
    2.10.1. Infections
    2.10.5. Toxic exposures
3. CUTANEOUS DISORDERS (all inclusive)
4.1. Acid-base disturbances
    4.1.1. Metabolic
    4.1.2. Mixed
    4.1.3. Respiratory
4.3. Fluid and electrolyte disturbances
4.5. Nutritional disorders
4.9. Thyroid disorders
5. ENVIRONMENTAL DISORDERS (all inclusive)
5.1. Diving emergencies
    5.1.1. Acute gas embolism
    5.1.2. Decompression sickness
5.2. Submersion incidents
5.3. Electrical injury (lightning and man-made)
5.4. High-altitude illness
5.5. Radiation injury
5.6. Poisonous plants
5.7. Smoke inhalation
5.8. Temperature-related illness
    5.8.1. Heat
    5.8.2. Cold
5.9. Bites and stings

6.1. Ear
    6.1.1. Cellultitis
    6.1.2. Foreign body

- 6.1.3. Labyrinthitis
- 6.1.7. Otitis externa
- 6.1.8. Otitis media
- 6.1.9. Tympanic membrane perforation

6.2. Nose
- 6.2.1. Anterior epistaxis
- 6.2.2. Posterior epistaxis

6.3. Oropharynx
- 6.3.1. Foreign body
- 6.3.3. Epiglottitis
- 6.3.4. Ludwig's angina
- 6.3.7. Peri-odontal abscess
- 6.3.8. Peri-tonsillar abscess
- 6.3.10. Retrophayngeal abscess
- 6.3.15. Uvulitis

6.4. Eye
- 6.4.1. External eye
  - 6.4.1.3. Conjuncitivits
  - 6.4.1.4. Corneal abrasions
  - 6.4.1.6. Foreign body
- 6.4.2. Anterior pole
  - 6.4.2.3. Hyphema/hypopion
  - 6.4.2.4. Iritis
- 6.4.3. Posterior pole
  - 6.4.3.2. Optic neuritis
  - 6.4.3.3. Papilledema
  - 6.4.3.4. Retinal detachment
  - 6.4.3.6. Vitreal hemorrhage
- 6.4.4. Orbit
  - 6.4.4.1. Panophthalmitis
  - 6.4.4.2. Peri-orbital cellulitis

7.1. Hemostatic disorders
- 7.1.1. Clotting factor disorders
- 7.1.2. Disseminated intravascular coagulation
- 7.1.3. Platelet disorders

7.3. Pancytopenia (if not covered under radiation injury)

7.4. RBC disorders
- 7.4.1. Anemia

7.5. Transfusions

8.6. Immune deficiency syndromes

8.8. Hypersensitivity
- 8.8.1. Anaphylactic and anaphlactoid reactions
- 8.8.2. Angioedema
- 8.8.4. Drug allergies
- 8.8.5. Serum sickness

9.1. Systemic bacterial infections
- 9.1.1. Botulism
- 9.1.2. Gonococcal disease
- 9.1.3. Sepsis
- 9.1.4. Mycobacterial disease
- 9.1.5. Meningococcal disease
- 9.1.6. Plague
- 9.1.7. Tetanus
- 9.1.8. Toxic shock syndrome

- 9.1.9. Spirochetal disease
  - 9.1.9.1. Lyme disease
  - 9.1.9.2. Syphilis
- 9.1.12. Anthrax
- 9.1.13. Q fever
- 9.1.14. Tularemia

9.3. Systemic parasitic infections
- 9.3.1. Malaria
- 9.3.3. Leishminiasis

9.4. Systemic Rickettsial infections
- 9.4.1. Rocky Mountain Spotted fever
- 9.4.2. Ehrlichiosis

9.5. Systemic viral infections
- 9.5.1. Human immunodefiency virus
- 9.5.2. Mononucleosis
- 9.5.3. Influenza
- 9.5.4. Mumps
- 9.5.6. Rabies
- 9.5.11. Hemorrhagic fevers
- 9.5.12. Ebola
- 9.5.13. Smallpox

9.7. Prevention
- 9.7.1. Prophylaxis
- 9.7.2. Immunizations

10.2. Joint abnormalities
- 10.2.1. Arthritis

10.3 Disorders of the spine
- 10.3.3. Herniated nucleus pulposus
- 10.3.4. Low-back syndromes

10.4. Musculoskeletal over-use syndromes

10.5. Muscle disorders
- 10.5.2. Rhabdomyolysis
- 10.5.3. Myositis

10.6. Soft-tissue infections
- 10.6.1. Necrotizing fasciitis
- 10.6.2. Gangrene
- 10.6.3. Paronychia
- 10.6.4. Felon
- 10.6.5. Tenosynovitis

11.4. Neurological infections
- 11.4.2. Encephalitis
- 11.4.3. Meningitis

11.5. Neuromuscular disorders
- 11.5.1. Guillain-Barré Syndrome

11.6. Peripheral neuropathies
- 11.6.1. Compression syndromes
- 11.6.2. Toxic
- 11.6.3. Metabolic

11.7. Spinal cord compression

11.9. Seizure disorders

11.10. Headache

12.1. Contraception

12.3. Complications of early preganancy
- 12.3.1. Ectopic

12.3.3. Abortion
14.1. Thought disorders
14.1.1. Schizophrenia
14.1.2. Delusional paranoia
14.2. Mood disorders
14.2.1. Bipolar disorder
14.2.2. Depression
14.3. Anxiety disorders
14.3.1. Post-traumatic stress
14.3.2. Panic
14.4. Somatoform disorders
14.4.1. Hysterical conversion
14.4.2. Hypochondriasis
14.5. Factitious disorders
14.5.2. Drug-seeking
14.5.3. Malingering
14.6. Addictive behavior
14.6.1. Substance abuse
14.6.2. Eating disorders
14.7. Personality disorders
14.8. Organic brain syndromes
14.8.1. Delirium
14.8.4. Intoxication and withdrawal
14.9. Risk assessment
14.9.1. Self
14.9.2. Others
14.10. Competency assessment
14.11. Treatment modalities
14.11.1. Verbal restraint
14.11.2. Chemical restraint
14.11.3. Physical restraint
14.11.4. Management of violence
14.12. Patterns of violence
14.12.2. Sexual assault
15.1 Structural renal disorders
15.1.1. Renal calculi
15.1.2. Obstructive uropathy
15.2. Pyelonephritis
15.4. Acute renal failure
16.1. Acute upper-airway obstruction
16.3. Disorders of the chest wall and pleura
16.3.1. Costochondritis
16.3.5. Pleurisy
16.3.6. Pneumomediastinum
16.3.7. Pneumothorax
16.4. Hyperventialtion syndrome
16.5. Noncardiogenic pulmonary edema
16.6. Lung disease
16.6.1. Asthma
16.6.2. Bronchitis
16.6.6. Environmental and industrial exposures
16.9. Pulmonary embolism
16.9.1. Venous thromboembolism
16.9.2. Fat embolism

16.10. Pulmonary infections
- 16.10.1. Bacterial
- 16.10.2. Fungal
- 16.10.3. Mycoplasma
- 16.10.8. Tuberculosis
- 16.10.9. Viral

17.1. Toxicological principles
- 17.1.1. Information sources
- 17.1.2. Diagnostic modalities
- 17.1.3. Toxidromes
- 17.1.4. Treatment modalities
  - 17.1.4.1. Antidotes
  - 17.1.4.2. Skin decontamination
  - 17.1.4.3. Gastric decontamination
  - 17.1.4.4. Enhanced elimination
    - 17.1.4.4.1. Activated charcoal
    - 17.1.4.4.2. Catharsis and bowel irrigation
    - 17.1.4.4.3. Diuresis
    - 17.1.4.4.4. Hemodialysis and hemoperfusion
    - 17.1.4.4.5. Hyperbaric oxygenation

17.2. Drug and chemical classes
- 17.2.1. Acetaminophen
- 17.2.2. Alcohols
- 17.2.4. Anticholinergics and cholinergics
- 17.2.12. Cannabis
- 17.2.13. Carbon monoxide
- 17.2.15. Caustic agents
  - 17.2.3. Nitrogen mustard
- 17.2.16. Cocaine
- 17.2.17. Respiratory decouplers
  - 17.2.17.1. Cyanogen chloride
  - 17.2.17.2. Hydrogen cyanide
  - 17.2.17.3. Hydrogen sulfide
- 17.2.19. Hallucinogens
- 17.2.24. Hydrocarbons
- 17.2.31. Irritant gasses
  - 17.2.31.1. Riot agents
  - 17.2.31.2. Chlorine
  - 17.2.31.3. Phosgene and diphosgene
- 17.2.32. Marine toxins
  - 17.2.32.1. Ciguatera
  - 17.2.32.2. Scromboid
- 17.2.33. Methemoglobinemia
- 17.2.34. Poisonous plants
- 17.2.39. Salicylates
- 17.2.41. Stimulants
- 17.2.43. Arsenicals
  - 17.2.43.2. Lewisite
- 17.2.44. Biological toxins
  - 17.2.44.1. Botulinum
  - 17.2.44.2. Ricin
  - 17.2.44.3. Staphylococcal
  - 17.2.44.4. Tricothecene

18.1. Principles of trauma care

- 18.1.3. Resuscitation and stabilization
- 18.1.5. Team response
- 18.1.7. Diagnosis
- 18.1.8. Treatment

18.2. Radiologic evaluation of trauma
- 18.2.1. Plain radiography
- 18.2.2. Contrast radiography
- 18.2.3. Computed tomography
- 18.2.4. Angiography
- 18.2.6. Ultrasonography

18.4. Diagnosis and management by anatomic areas
[use ATLS outline instead]

19.1. Gynecological disorders
- 19.1.1. Ovarian disorders
  - 19.1.1.1. Cyst
  - 19.1.1.2. Torsion
- 19.1.2. Vaginal foreign bodies
- 19.1.3. Uterus
  - 19.1.3.1. Endometriosis
  - 19.1.3.2. Dysfunctional uterine bleeding
- 19.1.5. Infectious disorders
  - 19.1.5.1. Bartholin's abscess
  - 19.1.5.2. Cervicitis
  - 19.1.5.3. Pelvic inflammatory disease
  - 19.1.5.4. Vulvovaginitis
  - 19.1.5.5. Urethritis

19.2. Male genital disorders
- 19.2.1. Congenital
  - 19.2.1.1. Hydrocele
  - 19.2.1.4. Varicocele
- 19.2.2. Structural
  - 19.2.2.4. Testicular torsion
  - 19.2.2.7. Prostatic hypertrophy
- 19.2.3. Infectious disorders
  - 19.2.3.1. Epididymitis and orchitis
  - 19.2.3.2. Balanitis
  - 19.2.3.3. Gangrene of the scrotum
  - 19.2.3.4. Prostatitis
  - 19.2.3.5. Urethritis

19.3 Sexual assault

19.4. Genital lesions
- 19.4.1. Chancroid
- 19.4.2. Granuloma ingiunale
- 19.4.3. Condyloma acuminata

20.4. Administration
- 20.4.5. Equipment and supplies
- 20.4.6. Space design
- 20.4.10. Documentation
- 20.4.11. Personnel management
- 20.4.13. Quality improvement
- 20.4.14. Staffing requirements
- 20.4.15. Policies and procedures
- 20.4.16. Nursing practice
- 20.4.17. Interdepartmental relations

- 20.4.18. Patient flow
- 20.4.20. Infection control
- 20.4.21. Security

20.7. Medical-legal aspects
- 20.7.1. Commitment
- 20.7.2. Laws
  - 20.7.2.4. Patient transfers
  - 20.7.2.5. Reportable conditions

20.13. Wellness

21.1. Organization of evacuation system

21.2. Evacuation operations

21.3. Medic education

21.4. Disaster medicine
- 21.4.2. Phases of disaster response

21.4.3. Disaster medical care
- 21.4.5. Disaster planning
- 21.4.7. International relief organizations

22.2. Pharmacology (for drugs available on TOAs)
- 22.2.1. Analgesics
- 22.2.2. Antibiotics
- 22.2.4. Anticonvulsants
- 22.2.5. Antihistamines
- 22.2.6. Antipsychotics
- 22.2.7. Bronchodilating agents (including steroids)
- 22.2.8. Cardiovascular drugs
- 22.2.11. Intravenous fluids
- 22.2.12. Local anesthetics
- 22.2.14. Neuromuscular blocking agents
- 22.2.15. Nonsteroidal anti-inflammatory agents
- 22.2.16. Opiods
- 22.2.17. Sedative-hypnotics

23.1. Airway techniques
- 23.1.1. Cricothyroidostomy
- 23.1.2. Heimlich maneuver
- 23.1.3. Intubation
- 23.1.4. Mechanical ventilation
  - 23.1.4.1. Hospital units
  - 23.1.4.2. Portable units
- 23.1.5. Percuntaneous transtracheal jet ventilation
- 23.1.6. Airway adjuncts

23.2. Local anesthesia

23.3. Diagnostic procedures
- 23.3.1. Arthrocentesis
- 23.3.2. Nasogastric intubation
- 23.3.3. Lumbar puncture
- 23.3.4. Nasogastric intubation
- 23.3.5. Pericardiocentesis
- 23.3.6. Peritoneal tap and lavage
- 23.3.8. Anoscopy
- 23.3.10. Ocular tonometry
- 23.3.11. Slit lamp examination
- 23.3.12. Electrocradiogram interpretation
- 23.3.13. Radiographic interpretation

23.4. Bladder catheterization

23.5. Head and neck procedures
- 23.5.1. Control of epistaxis
- 23.5.2. Laryngoscopy

23.6. Hemodynamic techniques
- 23.6.2. Central venous access
- 23.6.3. Military anti-shock trousers
- 23.6.4. Peripheral venous cutdown

23.7. Skeletal procedures
- 23.7.1. Fracture/dislocation immobilization
- 23.7.2. Fracture/dislocation reduction techniques
- 23.7.3. Spinal immobilization

23.8. Thoracic procedures
- 23.8.2. Defibrillation and cardioversion
- 23.8.5. Thoracostomy

23.9. Other techniques
- 23.9.1. End-tidal CO_2 monitoring
- 23.9.2. Gastric lavage
- 23.9.3. Incision and drainage
- 23.9.6. Pulse oximetry
- 23.9.8. Wound closure
- 23.9.9. Nail trephination
- 23.9.12. Foreign body removal

23.11. Multiple patient management

23.12. Universal precautions

Section III. - Reference documents for faculty preparing the "Military Unique Considerations " sections of core curriculum lectures

General

1. Textbook of Military Medicine, ed. BG R. Zajtchuk and R.F. Bellamy, Office of the Surgeon General, Dept of the Army

Medical Consequences of Nuclear Warfare (1989)
Conventional Warfare: Ballistic, Blast and Burn Injuries (1991)
Occupational Health : The Soldier and the Industrial Base (1993)
Military Dermatology (1994)
Military Psychiatry: Preparing in Peace for War (1994)
Anesthesia and Perioperative Care of the Combat Casualty (1995)
War Psychiatry (1995)
Medical Aspects of Chemical and Biological Warfare (1997)

2. Medical Management of Chemical Casualties Handbook , 2nd Edition, Chemcial Casualty Care Office, USA Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, Maryland, 21010

4. Medical Management of Biological Casualties Handbook 2nd Edition, USA Medical Research Institute of Infectious Disease (USAMRIID), FT Detrick MD

5. Emergency War Surgery, Nato Handbook, Department of Defense, US Government Printing Office, Washington DC, 20402

Navy Publications

General Medical Officer Manual, NAVMED P-5134 Dept of the Navy, Bureau of Med and Surgery, 2300 E. Street, NW, Washington DC 20372-5300. Also available on website; http://www.vnh.org
Naval Medical Library Provides a reference and circulating library for Naval Operational Medicine Institute (NOMI) and Naval Aerospace Medical Research Laboratory (NAMRL).
POC: DSN 922-2256/3517 , commercial (850) 452-2256/3517;
email achlk@namrl.navy.mil
LT Christian's Little Blue Book: An Unofficial Guide for US Navy Shipboard Medical Officers, Technical Manual NEHC-TM92-7, Navy Environmental Health Center, 2510 Walmer Ave, Norfolk VA 23513-2617
Manual of the Navy Medical Department, NAVMED P-117, Dept of the Navy, Bureau of Med and Surgery, 2300 E. Street, NW, Washington DC 20372-5300
BUMEDINST 6400.1 Operational Concept for Medical Support and Casualty Management in Chemical and Biological Warfare Environments
BUMEDINST 6200 Series Preventive Medicine
BUMEDINST 6470.10 Initial Management of Irradiated or Radioactively Contaminated Personnel
BUMEDINST 6700.13 Authorized Medical/Dental Allowance List for US Naval Vessels, Fleet Marine Force, and Other Elements of the Operating Forces
NAVMED P-5052 Occupational and Environmental Health Prevention; Treatment and Control of Heat Injury

Army Publications

Field Manuals
FM 3-3 Chemical and Biological Contamination Avoidance
FM 3-3-1 Nuclear Contamination Avoidance
FM 3-4 NBC Protection
FM 3-5 NBC Decontaminaton
FM 3-6 Field Behavior of NBC Agents
FM 3-7 NBC Field Handbook
FM 3-21 Chemical Accident Contamination Control
FM 8-9 NATO Handbook on the Medical Aspects of NBC Operations
FM 8-10 Health Service Support in a Theater of Operatons
FM 8-10-1 Tactics, Techniques and Procedures for the Medical Company
FM 8-10-3 Division Medical Operations Center
FM 8-10-4 Medical Platoon Leaders Handbook
FM 8-10-5 Brigade and Division Surgeons Handbook
FM 8-10-6 Medical Evacuations in a Theater of Operations

FM 8-10-7, Health Service Support in a Nuclear, Biological , and Chemical Environment
FM 8-10-8 Medical Intelligence in a Theater of Operations
FM 8-10-14 Employment of the Combat Support Hospital
FM 8-10-19 Dental Service Support in a Theater of Operations
FM 8-10-24 Area Support Medical Battalion
FM 8-40 Management of Skin Diseases in the Tropics
FM 8-42 Medical Operations in Low Intensity Conflict
FM 8-51 Combat Stress ina Theater of Operations
FM 8-55 Planning for Health Service Support
FM 8-285 Treatment of Chemical Agent Casualties and Conventional Military Chemical Injuries
FM 8-505 Army Medical Field Feeding Operations
FM 10-52 Water Supply in Theaters of Operations
FM 21-10 Field Hygiene and Sanitation
FM 21-10-1 Unit Field Sanitation Team
FM 21-11 First Aid for Soldiers
FM 21-20 Physical Fitness Training
FM 31-70 Basic Cold Weather Manual
FM 90-29 Noncombantant Evacuation Operations
FM 100-23 Peace Operations
FM 100-23-1 HA Multiservice Procedures for Humanitarian Assistance Operations
AR 40-562 Immunizatons and Chemoprophylaxis (NAVMEDCOMENST 6230.3: AFR 161-13: CG COMDTINST 6230.4D)

Air Force Publications

AFMAN 10-401 Medical Planning
AFIND 11 Index of Readiness and Disaster Preparedness Training Packages
AFH32-401v1 USAF Operations in a Chemical and Biological (CB) Warfare Environment, Planning and Analysis
AFJMAN 44-151/FM 8-9 Parts I, II and III Handbook on the Medical Aspects of NBC Defensive Operations
Mobile Field Surgical Team Concepts of Operation - MFAST Team Leader Wilford Hall USAF Medical Center, TX - DSN 554-3909/3841; Commercial (210) 292-3909/3841
Critical Care Transport Team Concepts of Operation - CCATT Director USAF SAM/AN, Brooks AFB, TX 78235-5236; DSN 240-1684/1685; Commercial (210) 536-1684/1685

Joint Publications

JOINT Pub 4-02 Doctrine for Health Service Support in Joint Operations (Guidance on MOOTW)
JOINT Pub 4.02.1 Joint Tactics Techniques and Procedures for Health Service Logistics Support in Joint Operations
JOINT Pub 4-02.2 Joint Tactics, Techniques and Procedures for Patient Evacuation in Joint Operations

DODD 6480.4 DOD Blood Program; Mobilization Planning Factors

Websites

1. Army Home Page http://www.army.mil
2. Air Force Home Page http://www.af.mil
3. Navy Home Page http://www.navy.mil
4. Marine Corps Home Page http://www.usmc.mil
5. Armed Forces Radiobiology Research Institute (AFRRI) http://www.afrri.usuhs.mil
   Has links to several other websites including home pages for all services
6. Medical NBC Information Server http://www.nbc-med.org
7. USA Medical Research Institute of Chemical Defense (USAMRICD)
   http://chemdef.apgea.army.mil
8. USA Medical Research Institute of Infectious Diseases (UASMRIID)
   http:www.usamriid.mil
9. USA Center for Health Promotion and Preventive Medicine (CHPPM)
   http://chppm-www.apgea.army.mil
10. Naval Medical Research and Development Command (NMRDC)
    http://triton.dmso.mil/NMRDC
11. Naval Health Research Center (NHRC) http://www.nhrc.navy.mil
12. Uniformed Services University of Health Sciences (USU) http://www.usuhs.mil
13. Associaton of Military Surgeons of the US (AMSUS) http://www.amsus.org
14. Federal Emergency Management Agency (FEMA) http://www.fema.gov
15. Centers for Disease Control (CDC) http://www.cdc.gov
16. Brooks Air Force Aerospace Medicine http://wwwsam.brooks.af.mil
17. Naval Operational Medicine Institute (NOMI) http://www.nomi.navy.mil
18 USN Flight Surgeon Manual , 1997 http://www.aerospacemed.org/FSM91.htm
19. USAF Publications Homepage http://afpubs.hq.af.mil/elec.products/pubs

Section IV. - Modular Training Opportunities Available to Military Emergency Medicine residents

1. **Combat Casualty Care Course** (C-4), Camp Bullis, TX.- Designed to prepare AMEDD officers to assess, treat and manage casualties from forward points of the battlefield to areas of evacuation during joint operations in low, mid, and high intensity conflicts. Students also receive Advanced Trauma Life Support training and testing. Most MC officers go during their internship year. Length: 8 days POC (210) 221-9448
2. **Combat Casualty Management Echelon III Course (** AMEDD 6A-C4A) , Camp Bullis TX- For senior (O-5 and O-6) MC officers, eligible for assignment as commanders, administrators, or department chiefs at a combat deployable medical facility. Focuses on the management of a large number of casualties and emphasizes medical suppl, transportation, communication, and site selection. Length : 8 days
POC (210) 221-9448

3. **Principles of Military Preventive Medicine**, AMEDD Center and School, Fort Sam Houston, TX- For AMEDD officers, to develop skills and knowledge of entry level preventive medicine. Length: 9 weeks Obligation: one year

4. **Military Tropical Medicine 6H-F23,** Uniformed Services University of Health Sciences, Bethesda, MD. - Training in diseases occurring in tropical and underdeveloped areas of the world. Usually held July-August of each year; includes field experience OCONUS. Length : 6 weeks

POC (301) 295-3804 DSN 295-3804

5. **Medical Management of Chemical and Biological Casualties Course,** USA Medical Research Institute of Infectious Diseases, FT Detrick MD and USA Medical Research Institute for Chemical Defense, Aberdeen Proving Ground, MD. - Designed to familiarize medical officers in the potential threat of biological and chemcial warfare agents. Length: 6.5 days Requirement: Secret Clearance

POC- (410) 671-2230 DSN 584-2230

6. **Medical Effects of Ionizing Radiation Course** , (MEIR) , Armed Forces Radiation Research Institute, Bethesda. MD- Provides training in the biomedical consequences of radiation exposure and the medical management of casualties. Length: 4 days in Washington DC; 2-3 day "road show" at various posts throughout the year.

POC (301) 295-1316 DSN 295-1316

7. **Operation Bushmaster**, Uniformed Services University of Health Sciences- Week long field exercise at Camp Bullis , TX, for USU 4th year students, integrating ATLS and combat medical skills in a continuous combat scenario. Officers from all services may apply to serve as faculty evaluators for the week. Length : 7 days

POC Course Director (301) 295-3720

8. **Counternarcotic Tactical Operations Medical Support** (CONTOMS) ,Casualty Care Research Center, Bethesda MD- Week long course to train medical personnel to provide medical support to tactical law enforcement units. Military physicians may apply.

POC (301) 295-6263 DSN 295-6263

9. **Emergency Management Institute** , FEMA- Six independant study courses on Emergency Preparedness that can be downloaded for free from the FEMA website.

POC http://www.FEMA.gov

10. **Medical Intelligence for the Military Medical Planner**, Armed Forces Medical Intelligence Center (AFMIC) , FT Detrick, MD - Provides training in medical intelligence gathering and threat assessment. Length 3 days Requirements: Secret Clearance, Letter of Justification of Attendance

POC (301) 619-7574 DSN 343-7574

11. **Strategic Medical Readiness and Contingency Course**, Naval School of Health Sciences, Bethesda MD -Medical officers with potential operational or contingency assignments. Length : 14 days Requirements: Secret Clearance

POC (301) 295-1250

12. **USA Flight Surgeon Course**, FT Rucker, AL- Provides training in aeromedical operations. Length: 6 weeks Requirements: One year obligation

13. **Aerospace Medicine Courses,** Brooks Air Force Base, San Antonio, TX- variety of courses offered, including Hyperbaric Training. Length: varies Requirements: varies

POC (210) 536-2844 DSN 240-2844

14. **Naval Flight Surgeon Course,** Pensecola, FL - To provide Naval Medical Officers with primary training as Flight Surgeons. Length:20 weeks Requirements: Physical exam, others Obligaton: two year utilization tour Classes : January, August, October
POC Email: code320@opmed1.med.navy.mil
15. **Cold Whether Medicine Course**, 12 days
16. **Fleet Hospital Field Training Course,** 10 days
17. **Global Medicine Course**, 12 days
18. **Landing Force Medical Staff Planners'** Course