

New Specialty/Subspecialty Proposal Template

Proposals for new specialties/subspecialties must include an official letter from the requesting society or program director association, as well as approval from the corresponding board. Proposals must address items a through h, listed below, per [ACGME Policies and Procedures](#).

Subject: 11.00 Procedures for Accreditation Designation of Specialties, Subspecialties, and Sub-Subspecialties

Section: 11.20 Criteria for Designation of a Subspecialty or Sub-Subspecialty for which Accreditation Will Be offered

The ACGME accredits programs in subspecialties and sub-subspecialties when it can be demonstrated that the clinical care of patients and their safety will be improved through accreditation of education and training in that discipline.

Proposals for designation of a subspecialty or sub-subspecialty for which accreditation will be offered must provide documentation on the professional and scientific status of the new subspecialty or sub-subspecialty including, at minimum, evidence of the following:

- a) the clinical care and safety of patients will be improved through the recognition of the discipline

Disaster Medicine (DM) certification is pivotal for improving access to quality care and patient safety when healthcare systems are under extreme stress. Physicians who received dedicated training in DM are uniquely prepared to adapt resource allocation, treatment algorithms, and operations during natural disasters, mass casualty incidents, terrorist attacks, and prolonged public health crises (e.g., COVID-19), reducing practice variability, supporting equitable care, and protecting vulnerable populations from being left without adequate care. (1,2,23,24,25,26)

DM applies to both sudden “no notice” events and sustained emergencies; in both, comprehensively trained physicians rapidly mobilize, coordinate across institutions and agencies, and guide the ethical distribution of scarce resources such as ventilators and vaccines while preserving access to essential services. (2,25,26,27)

Formal ACGME-accredited DM fellowship training would shift the field from variable, ad hoc practice to a standardized, evidence-based discipline by establishing rigorous minimum standards for such training in disaster planning, mitigation, response, and crisis clinical management. Because errors in disasters have population-level consequences, standardized training can reduce avoidable variation, limit low-value or costly interventions, and improve the consistency and safety of care. (1,2,3,5, 11)

A core public benefit of DM is equitable and ethical resource allocation when personnel, space, equipment, or supply chains are overwhelmed. Dedicated ACGME-accredited DM training will educate fellows on data-driven treatment algorithms to achieve the greatest overall benefit while maintaining fairness and transparency, which is especially critical for children,

older adults, people with chronic illnesses, and socioeconomically disadvantaged groups who are at heightened risk of being overlooked, thereby safeguarding access to care for those most vulnerable to system failure. (11,23,24,29,30)

ACGME-accredited DM fellowships will foster expertise in their graduates to improve care and safety by coordinating systems, leading multidisciplinary teams, and collaborating with public health agencies, hospitals, emergency response entities, and supply chain partners. Unified public and private sector response hubs streamline communication, enable rapid identification of shortages, and support alternative supply routes and protocols for conserving, substituting, and reallocating critical resources when usual supply systems fail. (3,6,28,31) This systematic, evidence-based, ethically grounded approach yields more consistent access to care across regions, strengthens preparedness by ensuring dedicated clinical expertise for the medical dimensions of crisis operations, and fills an essential gap in physician training related to crisis standards and adaptive decision-making. (4,6,23,24,28)

Ensuring that physicians have received rigorous, dedicated ACGME-accredited DM training would translate quality-improvement efforts into enhanced patient safety, better care experiences, and lower personal and economic consequences from adverse outcomes during large-scale emergencies. (2,3,23,31)

- b) the existence of a body of scientific medical knowledge underlying the subspecialty or sub-specialty that is (i) clinically distinct from other areas in which accreditation is already offered, and (ii); sufficient for educating individuals in a clinical field, and not simply in one or more techniques

i) DM constitutes a clinically distinct and scientifically mature body of medical knowledge that draws upon and unifies multiple disciplines. The subspecialty incorporates knowledge and skills from emergency medicine, prehospital medicine, public health surveillance, crisis response, critical care, trauma, preventive medicine, ethics, health equity, risk communication, and emergency management, among others. (1,2) However, the field is more expansive and requires ACGME-accredited dedicated training beyond what is expected for general emergency physicians, emergency medical services (EMS) physicians, preventive medicine physicians, and traumatologists. (3,8) DM is a distinct body of knowledge that enables physicians across nearly all primary specialties to practice safely and in a standardized manner during crises. (2,5)

A defining aspect of DM is its broad patient population, which includes individuals across all ages and sociodemographic groups. (1) Patients may present with both acute and chronic medical conditions spanning the full spectrum of care, from primary and preventive medicine to urgent, emergent, and critical care. (1) Depending on the event's scope and setting, DM physicians may respond to crises in austere environments—both prehospital and during hospital disaster declarations—where care must be delivered under resource constraints. (1,2)

Patients' needs vary considerably with the type of disaster. In earthquakes, tornadoes, mass gatherings, and terrorist events, traumatic injuries predominate. (1,11) In contrast, humanitarian crises, hurricanes, and floods typically produce exacerbations of chronic diseases and secondary infectious complications from disrupted healthcare access. (1,12) Infectious disasters may arise from novel pathogens, outbreaks, or bioterrorism events, reinforcing the need for a coordinated, systems-based medical response spanning the full

disaster life cycle—mitigation, preparedness, response, and recovery. Both the patient population and the expertise needed by physicians caring for it together provide a sound rationale for a distinct subspecialty warranting dedicated ACGME-accredited DM training.

ii) There is a rigorous body of knowledge that likewise supports fellowship training. The maturity of this scientific discipline is demonstrated by a robust academic foundation, including dedicated peer-reviewed journals (e.g., *Prehospital and Disaster Medicine*; *Disaster Medicine and Public Health Preparedness*), several authoritative textbooks on the subject (e.g., Ciotto's *Disaster Medicine*; Koenig and Schultz's *Disaster Medicine*), and approximately \$70 million in federal disaster-related research expenditures between 2011 and 2016. (9) Multiple national and international journals and textbooks further underscore the field's scholarly depth (Tables 1–2 in Attachments 1–2). Evidence also indicates growing interest in formalized, standardized DM fellowship training across specialties. (13–15)

Education in DM extends well beyond isolated procedural techniques, encompassing ethical, legal, clinical, and system-based competencies necessary to function amid catastrophic conditions. Practitioners must understand ethical frameworks guiding Crisis Standards of Care, integrate with multi-agency operational systems such as the National Incident Management System (NIMS) and Incident Command System (ICS), and provide austere care in scenarios such as pandemics, complex humanitarian emergencies, and CBRNE (chemical, biological, radiological, nuclear, and explosive) incidents. The 2023 Model Core Content of Disaster Medicine (2) delineates 15 major domains and more than 150 subtopics essential for fellowship training, structured to meet all ACGME core competencies—emphasizing patient care, medical knowledge, practice-based learning, professionalism, interpersonal communication, and systems-based practice.

Collectively, these attributes confirm that Disaster Medicine meets the criteria for a clinically distinct field of scientific medical knowledge. It is sufficiently broad and integrated to educate physicians comprehensively in a full clinical specialty, rather than only in individual skills or techniques.

- c) the existence of a sufficiently large group of physicians who concentrate their practice in the proposed subspecialty or sub-subspecialty

There is a sufficiently large and active group of physicians who concentrate their practice in the DM subspecialty. While there is no single national registry for this discipline, data from professional organizations, fellowship programs, and federal response teams provide a strong and reliable picture of a dedicated workforce.

The American College of Emergency Physicians (ACEP) has a robust and engaged DM Section. To date, ACEP's data on its DM section numbers provide the most reliable snapshot of emergency physicians who may be interested (Figure 1 in Attachment 3). Specifically, ACEP maintains a Disaster Medicine Section with 674 active members and a Disaster Preparedness and Response Committee with 44 members. More broadly, nearly 3,000 ACEP members are actively involved in prehospital and disaster-related activities.

Additionally, the current number of physicians concentrating their practice in Urban Search and Rescue (US&R) in the United States is estimated to be between 28 and 56 in official Federal Emergency Management Agency (FEMA) US&R Task Force roles, with an unknown

additional large number participating in state, local, or private teams. This estimate is based on FEMA task force composition and available training program data, as there is no national registry or specialty board certification specifically for USAR physicians. The primary sources for these figures are FEMA documentation and US&R training organizations. (16,17)

There are currently 18 non-ACGME-accredited DM fellowships housed solely within emergency medicine departments across the country. As a result, ABEM requests that any accreditation offered be departmental rather than institution-based. These programs are estimated to train and graduate between 20 and 40 physicians annually. As reported by fellowship directors, the number of DM fellowship graduates has not significantly changed and remains relatively constant from year to year. There are no other non-ACGME-accredited DM fellowships that are sponsored by departments other than emergency medicine (Figure 1 in Attachment 3).

ABEM anticipates that the number of physicians who will seek DM certification once offered or enter dedicated ACGME-accredited DM training will increase in response to the growing frequency of disasters, both natural (e.g., climate-mediated) and manmade. Over the past 15 years, the number of ABEM-certified physicians has increased by approximately four percent per year. Currently, over 14 percent of ABEM-certified physicians hold at least one subspecialty certificate, a proportion that continues to increase as ABEM offers new subspecialties or focused practice designations. Therefore, ABEM anticipates that the number of physicians interested in DM will likewise increase if there is an opportunity to recognize such expertise through subspecialty certification.

- d) the existence of national medical societies with a principal interest in the proposed subspecialty or sub-subspecialty

Yes, numerous national and international medical societies have expressed strong support for the proposed subspecialty certification in Disaster Medicine (DM). Many of these organizations submitted formal letters of support or public comments to the Accreditation Council for Graduate Medical Education (ACGME) in support of this new certification. The following professional societies represent a broad coalition across emergency medicine, infectious diseases, preventive medicine, and emergency medical services, all underscoring the importance of formal recognition of Disaster Medicine as a subspecialty (sources of data include personal communications and websites).

The American Academy of Emergency Medicine (AAEM) supports subspecialty certification in DM. AAEM represents 8,000 board-certified emergency physicians (ABEM and American Osteopathic Board of Emergency Medicine) nationwide, many of whom are community physicians or employed by private physician groups in hospitals without the traditional resources found in teaching institutions.

The American Academy of Emergency Medicine Resident and Student Association (AAEM/RSA) is a nonprofit professional association dedicated to supporting emergency medicine residents and medical students. AAEM/RSA represents 3,585 emergency physician residents and medical student members. Established in 2005 as an independent organization, AAEM/RSA focuses on advocacy, education, and leadership development in emergency medicine.

The American College of Emergency Physicians (ACEP), with over 40,000 members, has recognized and promoted physicians as leaders in DM for over 40 years and is highly supportive of subspecialty certification in this field. ACEP maintains an active Disaster Medicine Section with 674 members and a Disaster Preparedness and Response Committee with 44 members. (18) These groups play an important role in promoting education, research, and leadership in emergency preparedness and response across healthcare systems.

The Emergency Medicine Residents' Association (EMRA) is the largest and oldest independent organization representing emergency medicine physicians-in-training. (19) Founded in 1974, EMRA serves over 19,000 members, including residents, medical students, fellows, and alumni. The association advances the specialty of emergency medicine through education, leadership development, and advocacy.

Similarly, the Council of Residency Directors in Emergency Medicine (CORD-EM), founded in 1989, seeks to advance emergency medicine education by providing resources, developing best practices, and fostering professional development for educators and program leaders. (20)

The Society for Academic Emergency Medicine (SAEM) is dedicated to advancing academic emergency medicine through research, education, and professional development. (22) SAEM actively supports DM education and leadership through its Disaster Medicine Fellowship Approval Program as well as its Disaster Interest Group and Disaster Medicine Subcommittee. These programs encourage fellows and faculty to participate in disaster-related activities at institutional, community, state, and national levels, including emergency department disaster drills and grand rounds—efforts that substantially enhance preparedness and strengthen the field of disaster medicine.

The Infectious Diseases Society of America (IDSA) represents over 13,000 physicians, scientists, and other healthcare professionals specializing in infectious diseases. (21) Its mission is to improve health through excellence in patient care, education, research, and public health. IDSA plays a pivotal role in disaster and emergency preparedness through its Pandemic Preparedness, Emerging Infections, and Biosecurity Committees, which shape policy, develop clinical guidance, and advise on responses to public health emergencies, including pandemics, bioterrorism, and natural disasters involving infectious threats.

Other organizations demonstrating significant engagement include the American College of Preventive Medicine (ACPM), which represents physicians trained in public health and general preventive medicine who lead initiatives in disaster evaluation, prevention, mitigation, and recovery; the National Association of EMS Physicians (NAEMSP), particularly through its Emergency Preparedness Committee; and the Western Trauma Association (WTA), which supports the subspecialty to foster interdisciplinary collaboration and ensure coordinated care in resource-constrained environments. Additionally, the Special Operations Medical Association and the Society for Disaster Medicine & Public Health advance scholarship, training, and collaboration in disaster response and medical readiness.

On the global stage, the World Association for Disaster and Emergency Medicine (WADEM)—a United Nations-recognized international association—has formally expressed its support for the U.S. board-certification initiative. WADEM emphasizes that professionalization through certification will elevate the field's credibility and visibility and standardize training pathways worldwide.

- e) the regular presence in academic units and health care organizations of educational programs, research activities, and clinical services such that the subspecialty or sub-subspecialty is broadly available nationally

There are approximately 18 non-ACGME-accredited DM fellowship programs, all housed within emergency medicine departments at major academic institutions across the United States. These include programs at prestigious universities and healthcare systems such as Harvard Medical School/Beth Israel Deaconess Medical Center, Johns Hopkins University, Brown University, Stanford University, and the University of California, San Francisco (UCSF). While no primary information source currently documents the complete list of institutions offering such training, direct outreach to fellowship directors provided the following list:

1. Brown University/Rhode Island Hospital Disaster Medicine and Emergency Preparedness Fellowship
2. Carolinas Medical Center Operational & Disaster Medicine Fellowship
3. Einstein Medical Center Philadelphia EMS & Disaster Medicine Fellowship
4. George Washington University Disaster & Operational Medicine Fellowship
5. Harbor-UCLA EMS and Disaster Medicine Fellowship
6. Harvard Medical School/Beth Israel Deaconess Medical Center Disaster Medicine Fellowship
7. Indiana University School of Medicine, Disaster Medicine Fellowship
8. Johns Hopkins University Disaster Medicine Fellowship
9. Massachusetts General Hospital Fellowship in Disaster Medicine and Health Care Emergency Management
10. Mount Sinai Disaster Preparedness and Healthcare Leadership Fellowship
11. Rutgers Health/Newark Beth Israel Medical Center EMS & Disaster Medicine Fellowship
12. Stanford University EMS Fellowship (with optional disaster medicine focus)
13. State University of New York (SUNY), Health Sciences Center at Brooklyn Disaster Medicine Fellowship
14. UCSF EMS & Disaster Medicine Fellowship
15. University of Connecticut International Disaster Emergency Medicine Fellowship
16. University of Massachusetts Medical School Disaster Medicine and Emergency Management Fellowship
17. Upstate Medical University EMS and Disaster Medicine Fellowship
18. UT Health San Antonio Disaster Medicine Fellowship

It is reasonable to assume that many of these programs will seek full ACGME accreditation when such a designation becomes available.

Research activities in Disaster Medicine are robust and supported by a mature scientific community. Between 2011 and 2016 alone, the U.S. federal government invested approximately \$70 million in disaster-related research. The field's academic foundation is reflected in several dedicated, peer-reviewed journals, including *Prehospital and Disaster Medicine*, *Disaster Medicine and Public Health Preparedness*, and the *American Journal of Disaster Medicine*. The discipline is further supported by comprehensive reference texts

authored by leading experts, such as Koenig and Schultz's *Disaster Medicine* and Ciottoni's *Disaster Medicine*.

Clinically, the geographic distribution of DM subspecialists demonstrates strong national representation, with practitioners present in nearly every U.S. state and territory. The highest concentrations are in densely populated states such as New York, Texas, California, Florida, and Massachusetts, as well as in Illinois, Georgia, Pennsylvania, and Virginia. Nationally, these physicians hold critical leadership and operational roles in their organizations and communities. The American College of Emergency Physicians (ACEP) reports that nearly 3,000 members are involved in prehospital and disaster-related activities, with 674 specifically in its Disaster Medicine Section. These specialists commonly serve as Health System Disaster Preparedness Consultants, Chief Medical Officers for Emergency Preparedness, and members of state or federal disaster response teams such as Disaster Medical Assistance Teams (DMATs) and FEMA Urban Search and Rescue (US&R) Task Forces.

- f) a projected number of programs sufficient to ensure that ACGME accreditation is an effective method for quality evaluation, including current and projected numbers for each participating specialty if the subspecialty is multidisciplinary

At present, approximately 18 non-ACGME-accredited Disaster Medicine (DM) fellowship programs exist, all housed within Emergency Medicine (EM) departments. These programs collectively offer an estimated 20 to 40 trainee positions annually. The American Board of Emergency Medicine (ABEM) is unaware of any existing non-EM-sponsored DM fellowships.

ABEM anticipates continued growth in DM training programs, paralleling trends observed in other EM subspecialties following ACGME accreditation. For example, Emergency Medical Services (EMS) was originally projected to develop 40 accredited programs but has reached 92, while Advanced Emergency Medicine Ultrasonography was projected to develop 80 programs and now has 133. By comparison, ABEM estimates that approximately 30 DM fellowship programs will achieve ACGME accreditation within EM alone, representing roughly 5% of the medical workforce. (36) ABEM anticipates that other primary specialties will be interested in establishing a DM fellowship if ACGME-accredited training is approved, as the roadmap will already be in place to facilitate the fellowship in a department outside of Emergency Medicine. Although current estimates are limited to EM, ABEM believes that if DM certification is approved, additional programs will emerge in other primary specialties, such as Preventive Medicine and Surgery. The number and type of new programs across disciplines, however, remain impossible to predict. Nonetheless, ABEM anticipates that between 20 and 40 physicians could complete DM fellowship training annually across all specialties, a number expected to grow as multidisciplinary interest and institutional demand expand.

The sustained, anticipated growth of DM fellowships are supported by several factors. The accelerating pace, scale, and complexity of modern disasters have surpassed the capacity of generalist medical training to prepare physicians for leadership in crisis. These events include mass casualty incidents, industrial accidents, pandemics, infrastructure failures, acts of terrorism, and increasingly, climate-mediated disasters such as extreme heat waves, megafires, hurricanes, and power grid failures. As a result, the need for physicians with specialized expertise in DM has become integral to national health security.

At the same time, early-career physicians, residents, and medical students are experiencing and responding to an increasing number of disasters, fueling growing interest in formal DM training. ACGME-accredited training, through its recognition as a formal pathway, will solidify DM as a unique area of expertise long overdue to meet society's needs.

- g) the duration of the subspecialty or sub-subspecialty program is at least one year beyond education in the primary (core) specialty

Disaster Medicine (DM) fellowship training will require a minimum of 12 months to develop a substantive body of knowledge to ensure health security through disaster preparedness and response. This duration is necessary to address the essential knowledge framework that, outlined in the *Core Content for Disaster Medicine* (2), integrates principles spanning medical oversight, public health, preparedness, resiliency, operations, psychological and ethical aspects, prehospital care, bioterrorism, mass casualty management, technology, and research—constituting a unified domain of expertise for DM subspecialty certification.

Recognizing the extended training requirements and unique clinical demands of primary surgical specialties such as general surgery, orthopedic surgery, and neurological surgery, the 12 months of dedicated DM training could be embedded within a surgical residency and still meet eligibility requirements for subspecialty certification. Fellowships who would be interested in this pathway should confer with their respective American Board of Medical Specialties on how to structure such a fellowship for purposes of subspecialty board eligibility.

- h) the educational program is primarily clinical

The proposed Disaster Medicine (DM) subspecialty educational program is fundamentally clinical. The program is designed to train physicians to deliver direct patient care and manage complex medical pathologies in austere, resource-constrained environments where conventional standards of care cannot be applied.

DM fellowship training focuses on patient care before, during, and after disasters and crisis environments—situations that differ substantially from routine medical practice. These include mass casualty incidents, natural disasters, public health emergencies, humanitarian crises, and other events that strain or disrupt healthcare systems. Fellows are trained to evaluate, triage, and treat patients across the full continuum of care, including prehospital, hospital, and community-based response systems, as well as long-term recovery. The acute phase of disaster response is well known and easily identified. Long-term recovery, however, brings together all specialties, including primary care and surgical specialties, to reestablish a health system adversely impacted by the disaster.

Clinical decision-making during disasters requires physicians to adapt standard diagnostic and treatment approaches to conditions in which personnel, equipment, medications, and infrastructure may be limited. As such, DM fellows develop advanced competency in clinical triage, surge management, crisis standards of care, and the clinical coordination of multidisciplinary response teams. Although the curriculum includes education in preparedness planning, emergency management, and public health coordination, these elements directly

support the physician's ability to deliver effective clinical care during disasters and public health emergencies, as well as supporting long-term recovery efforts.

The DM educational program maintains its primary clinical focus through several key curriculum domains:

- **Direct Patient Care in Austere Conditions:** Fellows deliver direct patient care and manage mass-casualty care in the field, field stabilization, and the transport of critically ill patients when traditional hospital infrastructure has collapsed.
- **Advanced Pathophysiology of Disaster Injuries:** Training encompasses specialized injury and disease patterns that emerge during specific catastrophes, frequently exceeding the scope of general emergency medicine. Examples include:
 - o *Earthquakes:* Management of crush syndrome and acute kidney injury requiring rapid fluid resuscitation.
 - o *Wildfires and Explosions:* Treatment of complex burn injuries, smoke inhalation, and blast trauma.
 - o *Floods and Tsunamis:* Management of waterborne disease outbreaks (e.g., cholera, malaria) and immersion injuries.
 - o *CBRNE/HAZMAT Incidents:* Diagnosis and treatment of chemical, biological, radiological, nuclear, and explosive exposures, including acute radiation syndrome and infectious pathogen outbreaks.
- **Broad Clinical Populations:** DM physicians must be prepared to care for diverse populations across all ages and demographics, often managing simultaneous presentations of acute trauma, infectious disease, and exacerbations of chronic conditions in communities cut off from routine medical care. The magnitude of disruption in routine, chronic care during a disaster cannot be overstated. Patients lose their medications, cannot obtain routine vaccinations, and face tremendous barriers to navigating ongoing care, such as chemotherapy or mental health treatment.

Clinical experience is obtained through structured rotations, participation in disaster response activities, mass-casualty and disaster simulations, hospital and community disaster exercises, and operational deployments, when available. These experiences provide fellows with practical, hands-on expertise while developing the leadership skills necessary to coordinate patient care across complex healthcare systems.

Ultimately, while Disaster Medicine incorporates administrative and operational leadership components, the subspecialty remains firmly grounded in clinical practice. Its educational program emphasizes the direct diagnosis, stabilization, and treatment of patients when traditional medical resources and safety nets fail. Fellows are trained to provide and lead patient care in disaster and public health emergency settings, ensuring that clinical excellence remains at the center of the discipline.

Contact for questions and proposal submission

Jessalynn Watanabe

312.755.7489
jwatanabe@acgme.org

Submit the proposal and any supporting documentation by email to [Jessalynn Watanabe](#).

Upon receipt of a proposal for designation of a new subspecialty or sub-subspecialty, the proposal will be posted on the ACGME website for a 45-day period of public comment.

If the subspecialty is multidisciplinary, the ACGME Board will designate the Review Committees that will review programs in the subspecialty based on the projected numbers of programs by specialty and in accordance with Section 14.10 of the ACGME Manual of Policies and Procedures. For participating specialties not expected to reach the threshold of five programs within five years, programs must apply for accreditation to one of the designated Review Committees. If at any time in the future there are five or more programs from a participating specialty that is not a designated Review Committee, that specialty Review Committee may be newly designated to review programs in that subspecialty.

Table 1 – Applicable Disaster Medicine Journals

Applicable Disaster Medicine Journals	
Academic Emergency Medicine	Journal of Business Continuity and Emergency Planning
American Journal of Disaster Medicine	Journal of Emergency Medicine
American Journal of Emergency Medicine	Journal of Infectious Diseases
American Journal of Preventive Medicine	Journal of Medical Regulation
American Journal of Public Health	Journal of Orthopaedic Trauma
American Journal of Tropical Medicine and Hygiene	Journal of Traumatic Stress
Annals of Emergency Medicine	Journal of Travel Medicine
Archives of Academic Emergency Medicine	Pediatric Emergency Care
Burns and Trauma	Pediatric Emergency Medicine Journal
Canadian Journal of Emergency Medicine	Prehospital and Disaster Medicine
Disaster Medicine and Public Health Preparedness	Prehospital Emergency Care
Emergency Psychiatry	Resuscitation
Frontiers in Public Health – Disaster and Emergency Medicine	Scandinavian Journal of Trauma, Resuscitation, and Emergency Medicine
Health Security	The Journal of Trauma and Acute Care Surgery
International Journal of Disaster Medicine	Western Journal of Emergency Medicine
JACEP Open	World Journal of Emergency Surgery
Journal of Anesthesia, Analgesia and Critical Care	

Table 2 – Textbooks Dedicated to Disaster Medicine

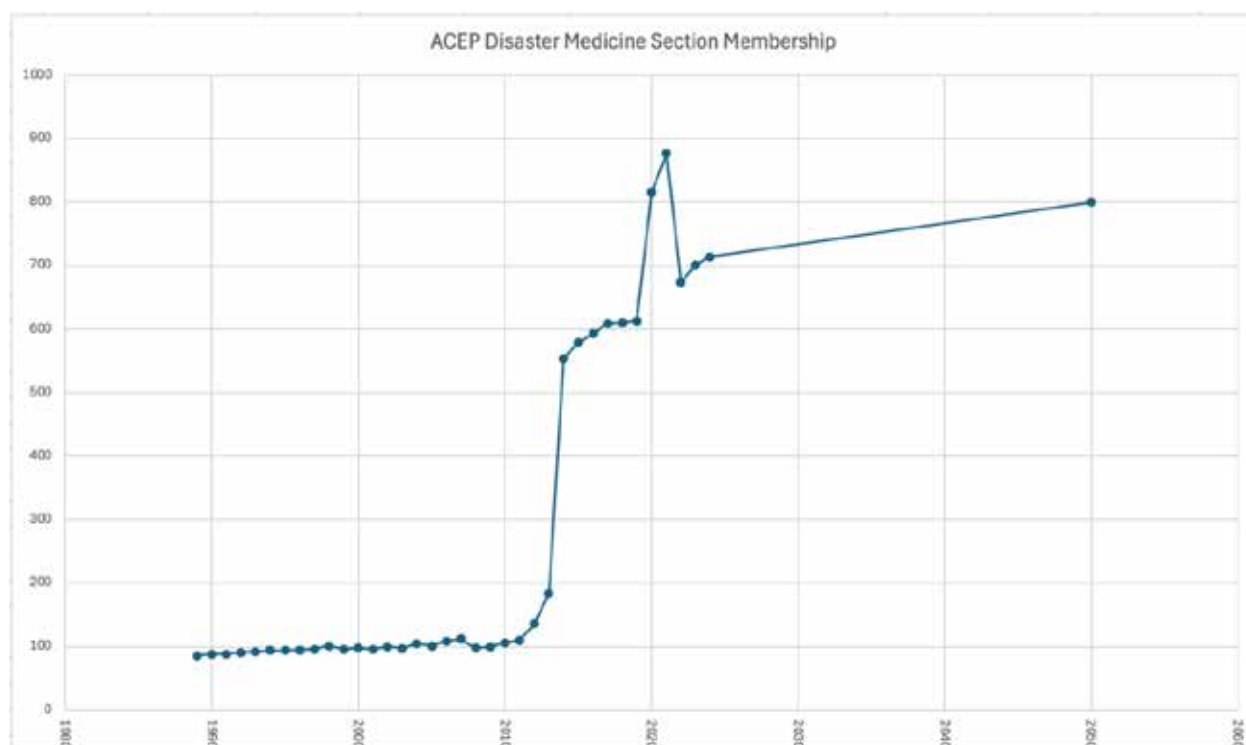
Book	Author / Editor(s)	Citation
Auerbach Wilderness Medicine		Auerbach PS. <i>Wilderness Medicine</i> . Elsevier Health Sciences; 2011.
Disaster Preparedness and Management	Michael Beach	Beach M. <i>Disaster Preparedness and Management</i> . F.A. Davis Company; 2010.
Disaster Psychiatry, Second Edition Readiness, Evaluation, and Treatment		Bernstein C, Lehmann C, Rimmer D, Szegedy-Maszak M. <i>Disaster Psychiatry</i> . (Pandya AA, Katz CL, eds.). Routledge; 2020.
Field Guide to Global Health & Disaster Medicine	James A. Chambers	Chambers JA. <i>Field Guide to Global Health & Disaster Medicine</i> . Elsevier - Health Sciences Division; 2021.
The Intersection of Trauma and Disaster Behavioral Health		Cherry KE, Gibson A, eds. <i>The Intersection of Trauma and Disaster Behavioral Health</i> . Springer Nature; 2021.
Ciottone's Disaster Medicine	Gregory R. Ciottone, Paul D Biddinger, Robert G. Darling, Saleh Fares, Mark E Keim, Michael S Molloy, Selim Suner	Ciottone GR, ed. <i>Ciottone's Disaster Medicine</i> . 3rd ed. Elsevier - Health Sciences Division; 2023.
Disasters and Public Health Planning and Response	Bruce Clements, Julie Casani	Clements B, Casani J. <i>Disasters and Public Health</i> . Butterworth-Heinemann; 2016
EMS Medicine	Derek Cooney	Cooney D. <i>EMS Medicine</i> . McGraw-Hill Professional; 2015.
Introduction to International Disaster Management	Damon P. Coppola	Coppola D. <i>Introduction to International Disaster Management</i> . 4th ed. Butterworth-Heinemann; 2021.
Principles of Emergency Management and Emergency Operations Centers (EOC)	Michael J. Fagel, Rick C. Mathews, and J. Howard Murphy	Fagel MJ. <i>Principles of Emergency Management and Emergency Operations Centers (EOC)</i> . 2nd ed. (Fagel MJ, Mathews RC, Murphy JH, eds.). CRC Press; 2021.
Disaster Health Management A Primer for Students and Practitioners	Gerry FitzGerald, Mike Tarrant, Peter Aitken, Marie Fredriksen	FitzGerald G, Pizzino S, Burns P, et al., eds. <i>Disaster Health Management</i> . 2nd ed. Routledge; 2024.
Anesthesiologists in time of Disaster, An Issue of Anesthesiology Clinics		Fleisher LA, Raiten JM, eds. <i>Anesthesiologists in Time of Disaster, An Issue of Anesthesiology Clinics</i> . Elsevier - Health Sciences Division; 2021.
Emergency Management in Anesthesia and Critical Care		Heiner JS, Gabot M, Elisha SM. <i>Emergency Management in Anesthesia and Critical Care</i> . Churchill Livingstone; 2024.
Anaesthesia and Analgesia in Emergency Medicine (Oxford Handbooks in Emergency Medicine)		Illingworth KA, Simpson KH. <i>Anaesthesia and Analgesia in Emergency Medicine</i> . 2nd ed. Oxford University Press; 1998.

Emergency Public Health: Preparedness and Response	Girish Bobby Kapur and Jeffrey P. Smith	Kapur GB, Smith JP. <i>Emergency Public Health: Preparedness and Response</i> . Jones and Bartlett; 2010.
Koenig and Schultz's Disaster Medicine: Comprehensive Principles and Practices	Kristi Koenig, Carl Schultz	Koenig KL, Schultz CH, eds. <i>Koenig and Schultz's Disaster Medicine</i> . Cambridge University Press; 2016. doi:10.1017/cbo9781139629317
Public Health Management of Disasters	Linda Young Landesman	Landesman LY. <i>Landesman's Public Health Management of Disasters</i> . 5th ed. (Landesman LY, Gershon RR, Gebbie EN, Merdjanoff AA, eds.). American Public Health Association; 2021.
Essentials of Disaster Anesthesia		McIsaac J, ed. <i>Essentials of Disaster Anesthesia</i> . Cambridge University Press; 2020.
Oxford American Handbook of Disaster Medicine	Robert A. Partridge, Lawrence Proano, David Marcozzi	Partridge RA, Proano L, Marcozzi D, et al., eds. <i>Oxford American Handbook of Disaster Medicine</i> . Oxford University Press; 2012.
Introduction to Emergency Management and Disaster Science	Brenda D. Phillips, David M. Neal, and Gary R. Webb	Phillips BD, Neal DM, Webb GR. <i>Introduction to Emergency Management and Disaster Science</i> . 3rd ed. Routledge; 2021.
Tintinalli's Emergency Medicine		Promes SB. <i>Tintinalli's Emergency Medicine Examination and Board Review</i> . 3rd ed. McGraw-Hill Education/Medical; 2023.
Healthcare Emergency Management	Michael J. Reilly and David S. Markenson	Reilly, M. J., & Markenson, D. (2010). <i>Health care emergency management: Principles and practice</i> . Jones & Bartlett Learning.
Manual of Disaster Medicine	N. D. Reis, Eran Dolev	Reis ND, Dolev E, eds. <i>Manual of Disaster Medicine</i> . 1989th ed. Springer; 2012
Disaster Mental Health Community Planning		Schmidt RW. <i>Disaster Mental Health Community Planning</i> . Taylor & Francis Group; 2020. doi:10.4324/9780429285134
Emergency Medicine, Trauma and Disaster Management: From Prehospital to Hospital Care and Beyond		Trauma and Disaster Management: From Prehospital to Hospital Care and Beyond. <i>Emergency Medicine</i> .
Rosen Emergency Medicine		Walls R, Hockberger R, Gausche-Hill M, Erickson TB, Wilcox SR. <i>Rosen's Emergency Medicine - Concepts and Clinical Practice E-Book</i> . 10th ed. Elsevier; 2022.
Disaster Medicine	Wei Zhonghai	Zhonghai W. <i>Disaster Medicine</i> . Alpha Science International; 2016.

This graph shows the growth in membership of the ACEP Disaster Medicine Section from its founding in 1989 through a projected growth for 2050.

- **1989:** The section was established with at least 100 founding members.
- **1990s–2020s:** Membership steadily increased as disaster medicine gained importance due to global events and growing interest among emergency physicians.
- **2025:** The section is well-established, actively supporting members through education, networking, and leadership opportunities.
- **2050 (Projected):** Membership is expected to continue rising, reflecting ongoing relevance and engagement in disaster medicine.

Figure 1 – ACEP Disaster Medicine Section Membership



REFERENCES

1. Ciottone GR, editor. Ciottone's disaster medicine. 3rd ed. Philadelphia, PA: Elsevier - Health Sciences Division; 2023. 1080 p.
2. Wexler BJ, Schultz C, Biddinger PD, Ciottone G, Cornelius A, Fuller R, et al. The 2023 Model Core Content of Disaster Medicine. *Prehosp Disaster Med*. 2023 Dec;38(6):699–706.
3. Bradt DA, Drummond CM. Professionalization of disaster medicine--an appraisal of criterion-referenced qualifications. *Prehosp Disaster Med*. 2007 Sep;22(5):360–8.
4. Sarin RR, Hick JL, Livinski AA, Nieratko J, Treber M, Mazurek A, et al. Disaster medicine: A comprehensive review of the literature from 2016. *Disaster Med Public Health Prep*. 2019 Dec;13(5–6):946–57.
5. Walsh L, Subbarao I, Gebbie K, Schor KW, Lyznicki J, Strauss-Riggs K, et al. Core competencies for disaster medicine and public health. *Disaster Med Public Health Prep*. 2012 Mar;6(1):44–52.
6. Hart A, Hertelendy A, Ciottone GR. Why every US hospital needs a disaster medicine physician now. *Disaster Med Public Health Prep*. 2022 Feb;16(1):1–2.
7. March JA, Adams JL, Portela RC, Taylor SE, McManus JG. Characteristics and diversity of ACGME accredited Emergency Medical Services fellowship programs. *Prehosp Emerg Care*. 2019 Jul;23(4):551–9.
8. Sandifer SP, Wexler BJ, Flamm A. Comparison of disaster Medicine education in Emergency Medicine residency and Emergency Medical Services fellowship in the United States. *Prehosp Disaster Med*. 2023 Jun;38(3):378–83.
9. Kirsch TD, Keim M. US governmental spending for disaster-related research, 2011-2016: Characterizing the state of science funding across 5 professional disciplines. *Disaster Med Public Health Prep*. 2019 Dec;13(5–6):912–9.
10. Benevolenza MA, DeRigne L. The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature. *J Hum Behav Soc Environ*. 2019 Feb 17;29(2):266–81.
11. Burke RV, Iverson E, Goodhue CJ, Neches R, Upperman JS. Disaster and mass casualty events in the pediatric population. *Semin Pediatr Surg*. 2010 Nov;19(4):265–70.
12. Gold JI, Montano Z, Shields S, Mahrer NE, Vibhakar V, Ybarra T, et al. Pediatric disaster preparedness in the medical setting: integrating mental health. *Am J Disaster Med*. 2009 May;4(3):137–46.
13. Grabo D, Strumwasser A, Remick K, Briggs S. A pilot registry of trauma surgeons willing and ready to respond to disasters. *J Trauma Acute Care Surg*. 2018 Feb;84(2):393–6.
14. Grock A, Aluisio AR, Abram E, Roblin P, Arquilla B. Evaluation of the association between disaster training and confidence in disaster response among graduate medical trainees: A cross-sectional study. *Am J Disaster Med*. 2017 Winter;12(1):5–9.

15. Dennis AJ, Brandt M-M, Steinberg J, Qureshi S, Burns JB, Capella J, et al. Are general surgeons behind the curve when it comes to disaster preparedness training? A survey of general surgery and emergency medicine trainees in the United States by the Eastern Association for the Surgery for Trauma Committee on Disaster Preparedness. *J Trauma Acute Care Surg.* 2012 Sep;73(3):612–7.
16. Urban Search & Rescue [Internet]. [cited 2025 May 20]. Available from: <https://www.fema.gov/emergency-managers/national-preparedness/frameworks/urban-search-rescue>
17. The Rescue Company [Internet]. [cited 2025 May 20]. Available from: <https://www.therescuecompany1.com/copy-of-airway-class-3>
18. Fisher J. 2025.
19. EMRA [Internet]. EMRA. Available from: <https://www.emra.org/about>
20. CORD [Internet]. Available from: <https://www.cordem.org/>
21. IDSA [Internet]. Available from: <https://www.idsociety.org/>
22. SAEM [Internet]. Available from: <https://www.saem.org/>
23. Cornelius AP, Mace SE, Char DM, Doyle C, Noll S, Reyes V, et al. Disparities in disaster healthcare: A review through a pandemic lens. *Am J Disaster Med.* 2024;19(3):251–63.
24. de-Winton Cummings P-J, Baker KK, Appell L, Rios MD, Diekema DJ, Kitzmann T, et al. Equity in epidemic response: an action-oriented framework for guiding public health in equitable responses to major infectious disease emergencies. *Int J Equity Health.* 2025 Mar 12;24(1):69.
25. Shanes A, Shecter I, Davis M. WADEM position statement: Disaster Medicine education in health care profession training. *Prehosp Disaster Med.* 2025 Feb;40(1):4–5.
26. Umphrey L, Wathen J, Chambliss A, Kalata K, Morgan L, Moua M, et al. Pediatrics in Disasters: Evolution of a hybrid global health training program during the COVID-19 pandemic. *Adv Pediatr.* 2023 Aug;70(1):1–15.
27. Hansoti B, Kellogg DS, Aberle SJ, Broccoli MC, Feden J, French A, et al. Preparing emergency physicians for acute disaster response: A review of current training opportunities in the US. *Prehosp Disaster Med.* 2016 Dec;31(6):643–7.
28. James JJ, Benjamin GC, Burkle FM Jr, Gebbie KM, Kelen G, Subbarao I. Disaster medicine and public health preparedness: a discipline for all health professionals. *Disaster Med Public Health Prep.* 2010 Jun;4(2):102–7.
29. Ablah E, Tinius AM, Konda K. Pediatric emergency preparedness training: are we on a path toward national dissemination? *J Trauma.* 2009 Aug;67(2 Suppl):S152-8.
30. American Academy of Pediatrics Committee on Pediatric Emergency Medicine, American Academy of Pediatrics Committee on Medical Liability, Task Force on Terrorism. The pediatrician and disaster preparedness. *Pediatrics.* 2006 Feb;117(2):560–5.

31. Agubosim CB, Hertelendy AJ, Masri TM, Sarin RR, Woodward CA, Issa FS, et al. Assessing the current state of USA-based disaster medicine fellowships. *Disaster Med Public Health Prep.* 2025 Jan 2;18:e325.
32. Cost-benefit analysis of community-based disaster risk reduction [Internet]. Genève, Switzerland: International Federation of Red Cross & Red Crescent Societies; Available from: <https://preparecenter.org/resource/cost-benefit-analysis-of-community-based-disaster-risk-reduction-red-cross-red-crescent-lessons-learned-recommendations-and-guidance/>
33. Başer A, Sofuoğlu Z. The impact of a disaster medicine clinical training program on medical students' disaster literacy. *PeerJ.* 2025 Jan 8;13:e18800.
34. ACEP Disaster Preparedness & Response Committee. Development of Competencies for Disaster Medicine Fellowships. 2014.
35. Sarin RR, Cattamanchi S, Alqahtani A, Aljohani M, Keim M, Ciottone GR. Disaster education: A survey study to analyze Disaster Medicine training in Emergency Medicine residency programs in the United States. *Prehosp Disaster Med.* 2017 Aug;32(4):368–73.
36. U.S. Physician Workforce Data Dashboard [Internet]. Available from: <https://www.aamc.org/data-reports/report/us-physician-workforce-data-dashboard>



**American Board of
Emergency Medicine**

3000 Coolidge Road
East Lansing, MI 48823

e: abem@abem.org
w: www.abem.org
p: (517) 332-4800

July 6, 2026

Debra Weinstein, MD
President and Chief Executive Officer
Accreditation Council for Graduate Medical Education
401 North Michigan Avenue
Suite 2000
Chicago, IL 60611

Dear Dr. Weinstein:

The American Board of Emergency Medicine (ABEM) is writing to ask that the Accreditation Council for Graduate Medical Education (ACGME) establish and offer a dedicated ACGME-accredited fellowship training for Disaster Medicine (DM). This new subspecialty was approved by the American Board of Medical Specialties (ABMS) at its February 2026 meeting.

If approved, ACGME-accredited DM fellowship training would fulfill a need expressed to the ABMS and ACGME in 2022 by the Health Resources and Services Administration (HRSA) at, or related to, a presentation given by Thomas J. Nasca, MD, at the National Biodefense Science Board in late September 2022. HRSA informally expressed the need for the house of medicine to strengthen its resilience to natural and man-made disasters, seeking a unified response led by physicians with expertise in DM, representing all primary specialties, that is readily available at a moment's notice. Subsequently, ABEM participated in a steering group meeting among the ABMS, ACGME, and the National Biodefense Science Board to discuss how to develop a pathway to strengthen DM response, including the potential for dedicated ACGME-accredited training and ABMS certification.

There are currently approximately 18 existing non-ACGME-accredited DM fellowships, all sponsored by Departments of Emergency Medicine. Without ACGME accreditation, these fellowships will continue to operate with inconsistent curricula, variable standards, and without an external quality assurance mechanism. The consequences of inadequately trained DM physicians extend beyond individual patients — errors in disaster response have population-level implications. ACGME accreditation would transform this field from a variable, ad hoc discipline into a rigorous, evidence-based subspecialty with defined minimum competencies, thereby directly improving the consistency and safety of medical care delivered during disasters, mass-casualty incidents, public health emergencies, and other large-scale crises.

ABEM approved the formation of a Disaster Medicine Task Force in 2024 to develop eligibility criteria for subspecialty certification in DM. A minimum of 12-month, department-based, ACGME-accredited fellowship training, if approved, would fulfill the Training-only Pathway. In the interim and pursuant to ABEM's usual pathways for a new subspecialty or focused practice designation, there is a time-limited Practice-Only and Practice-plus-Non-ACGME-accredited

Training Pathway to allow thought leaders and well-established experts to obtain DM certification. Eligibility criteria are provided in Attachment 1 for ACGME review and consideration. The Core Content, which serves as the basis of the certification examination and could be used to form the foundation for designing an ACGME-accredited fellowship curriculum, has been developed and approved by the ABEM Board of Directors (Attachment 2). A draft set of Common Program Requirements in Disaster Medicine (Attachment 3), also approved by the ABEM Board of Directors, is offered to the ACGME as a starting point for further development of program requirements.

ABEM respectfully requests that any accreditation be housed at the departmental level rather than the institutional level, given that, to date, all DM fellowships are departmental-based. The dissemination of DM as a recognized training pathway among medical students and residents will be on a more expedient trajectory if housed locally, within specialty departments. It is conceivable that this degree of expediency is needed to respond to the growing number of manmade and natural disasters. Of note, ABEM, as the Administrative Board, has offered and continues to invite any ABMS Member Board interested in becoming a Qualifying Board to do so. Thus far, 10 ABMS Member Boards will participate as Qualifying Boards; their physicians, if eligible, will be able to seek this subspecialty certificate. ABEM appreciates its partnership with its Co-Sponsoring Boards, specifically the American Board of Preventive Medicine and the American Board of Surgery.

The ACGME is uniquely positioned to provide the external accreditation framework that Disaster Medicine requires. No other national body holds the infrastructure and educational expertise to establish program requirements, conduct site visits, and ensure ongoing quality across a geographically distributed network of fellowship programs. The 18 existing programs — housed at institutions including Harvard Medical School, Johns Hopkins University, Stanford University, and George Washington University — represent a ready foundation that is widely expected to pursue ACGME accreditation once a formal pathway is established. ABEM projects that at least 30 emergency medicine-based programs will ultimately achieve accreditation, consistent with growth trajectories observed following ACGME accreditation of the Emergency Medical Services subspecialty.

Absent ACGME involvement, the field will remain fragmented, certification will lack a corresponding training standard, and the public benefit of subspecialty recognition will be substantially diminished. The ACGME's engagement is not merely preferable — it is essential to the integrity and social utility of this new subspecialty.

Thank you in advance for your thoughtful and deliberate consideration. Please do not hesitate to contact ABEM for any clarification beyond the information noted in the accompanying application.

Respectfully,



James Thomas, MD
President



Barry Knapp, MD
Director
Chair, Disaster Medicine Task Force

Attachments:

1. Eligibility Criteria for Subspecialty Certification in Disaster Medicine
2. The 2023 Model Core Content of Disaster Medicine
3. Draft Program Requirements in Disaster Medicine

Cc:

Melissa Barton, MD, MPH, Executive Director, Professional & Clinical Affairs, American Board of Emergency Medicine
Jo Byske, MD, President and Chief Executive Officer, American Board of Surgery
Felicia Davis, MHA, Executive Director, Review Committees for Emergency Medicine, Nuclear Medicine, and Radiology, Accreditation Council for Graduate Medical Education
JT Finnell, MD, MSc, Director of Medical Affairs, American Board of Emergency Medicine
Richard Hawkins, MD, President and Chief Executive Officer, American Board of Medical Specialties
Mary Klingensmith, MD, Chief Accreditation Officer, Accreditation Council for Graduate Medical Education
Tiffany Murano, MD, Chair, Review Committee for Emergency Medicine, Accreditation Council for Graduate Medical Education
Greg Ogrinc, MD, MS, Senior Vice President, Certification Standards and Programs, American Board of Medical Specialties
Christopher Ondrula, JD, Chief Executive Officer, American Board of Preventive Medicine

ABEM Disaster Medicine Eligibility Criteria

The general criteria for physicians seeking certification in Disaster Medicine (DM) are as follows:

1. Be certified by the American Board of Emergency Medicine, the American Board of Preventive Medicine (ABPM), or other Qualifying ABMS Board;
2. Successfully complete the Training pathway;
3. Complete and submit the application to ABEM; ABPM-certified physicians will apply to the ABPM;
4. Actively participate in the ABEM or ABPM continuing certification process;
5. Fulfill the [Policy on Medical Licensure](#); and
6. Comply with the [Policy on Board Eligibility for Subspecialties](#).

Additionally, the physician must fulfill the eligibility criteria for one of three application pathways:

1. Training Pathway
2. Practice-plus-Non–ACGME-Accredited DM Training
3. Practice-Only Pathway

The Practice-plus-Non–ACGME-Accredited DM Training and Practice-Only Pathway will close on December 31, 2033. Specifically, all eligibility requirements must be completed, and all applications received no later than December 31, 2033.

ELIGIBILITY CRITERIA

Training Pathway

The Training pathway requires that physicians successfully complete an ACGME-accredited DM fellowship. The ACGME accredits DM fellowships of 12 months in length. The physician must successfully complete all months of training for which the DM fellowship is ACGME-accredited to fulfill the Board's eligibility criteria. For physicians who apply through the Training Pathway, ABEM will seek independent verification of the physician's successful completion of the DM fellowship program from the DM fellowship program director. The physician must successfully complete the fellowship training by the examination date.

Practice-Only Pathway

The Practice-Only Pathway will end on December 31, 2033 (7 years after ABMS approval of the application). To apply for certification through the Practice-Only Pathway, a physician must meet all the following criteria:

- They must demonstrate that within the five years (60 months) immediately preceding the date on which they submit their application, they have held a position that demonstrates all of the following responsibilities and an equivalent title for at least 36 months (at least 200

hours per year, on average). The 36 months do not need to be contiguous. ABEM will require independent verification of the physician's DM experience from the physician's direct supervisor(s).

Credit for Certification

A physician may be eligible for 12 months of credit toward the practice experience requirements under the Practice-Only Pathway by the following:

- American Board of Emergency Medicine certification in Emergency Medical Services
- American Board of Preventive Medicine certification in Public Health & General Preventive Medicine

Practice-plus-Non–ACGME-Accredited DM Training

The Practice-plus-Non–ACGME-Accredited DM Training will end on December 31, 2033 (7 years after ABMS approval of the application). To apply for DM certification through Practice-plus-Non–ACGME-Accredited DM Training, a physician must meet all the following criteria:

- They must successfully complete a fellowship of at least 12 months that reasonably addresses the DM Core Content. An ACGME-accredited residency program or ACGME-accredited institution must sponsor the fellowship. ABEM will seek independent verification of the physician's successful completion of the non-accredited DM fellowship program from the DM fellowship program director.
- They must demonstrate that within the five years (60 months) immediately preceding the date on which they submit their application, they have held a position that demonstrates all of the following responsibilities and an equivalent title [<hyperlink>](#) for at least 24 months (at least 200 hours per year, on average). The 24 months do not need to be contiguous. ABEM will require independent verification of the physician's DM experience from the physician's direct supervisor(s).
- Practice experience completed during the 12 months of Practice-plus-Non–ACGME-Accredited DM Training. DM fellowship training does not count toward the practice experience requirement of 24 months (at least 200 hours per year, on average).

Credit for Certification

A physician may be eligible for 12 months of credit toward the practice experience requirements under Practice-plus-Non–ACGME-Accredited DM Training by the following:

- American Board of Emergency Medicine certification in Emergency Medical Services
- American Board of Preventive Medicine certification in Public Health & General Preventive Medicine

Acceptable Leadership Experience and Responsibilities for Practice Pathway and the Practice Portion of the Practice-plus-Non-ACGME-Accredited DM Training.

**ABEM will require verification of leadership-administration experience by an individual who served as a direct supervisor to the position/role during the same time as the experience occurred.*

The physician must demonstrate that she or he holds or previously held a position for at least 36 months (Practice-Only Pathway) or 24 months (Practice-plus-Non-ACGME-accredited DM Training Pathway) that incorporates significant aspects of disaster planning, response, and/or recovery. Additionally, of that total number of months, a minimum of 200 hours per year, on average, of the physician's time is/was devoted to Disaster Medicine through three or more of the following areas:**

- **Provision or Oversight of Direct Disaster Medicine Patient Care**
 - Provision of direct health care during a natural or manmade disaster in the physician's primary specialty practice of sufficient rigor. An additional narrative explanation of such care may be required.
 - Emphasis on high-impact and organizational experience
- **Academic Initiatives on Disaster Management**
 - Responsible for leading academic initiatives, could include education, research and/or quality improvement projects, on disaster medicine to physicians, health systems, community leaders, and government officials.
 - Examples of sufficient rigor include: Served as a first, second, or senior author on five or more peer-reviewed articles; presentation at a minimum of three different regionally-, nationally-, or internationally-based Disaster Medicine conferences; presentation of at least three Disaster Medicine lectures, outside of the physician's own department or institution, for which participants can receive CME credit.
 - For physicians who practice in non-academic settings, teaching a minimum of 10 hours (as verified by the department chair or similar person) of structured professional development lectures or workshops teams will be considered.
- **Operational Leadership** *(Must fulfill at least one of the following three criteria)*
 - Talent management
 - Oversight and management of disaster medicine physicians and other care providers during the phases of disaster management to include staff evaluations and indirect or direct supervision of care provided by emergency managers and clinical care providers.
 - Fiscal management

- Oversight and management of billing and coding, reimbursement, and financing of Disaster Medicine preparedness, response, recovery, mitigation, and prevention.
 - Participates in major negotiations with payers and state and federal legislative bodies to increase funding for care.
- Programmatic Leadership and Development
 - Development of preparedness and disaster response programs
 - High impact initiatives at regional, state, or national levels (e.g., disaster health response networks)
 - Strategic Leadership (regional, state, or national level)
 - Oversight of systems integration
 - Healthcare business continuity planning
 - Leading high-impact response initiatives
- **Regulatory and Policy Development**
 - Leading organizations through regulatory, accreditation, or certification processes, such as Joint Commission, SAMHSA, etc.
 - Design of disaster care standards, policies, and procedures at a hospital, system, state, or federal level
- **Care Coordination and Management**
 - Oversight and management of the care continuum within and between the phases of disaster care acute care intervention and transition to ongoing long-term care.

***ABEM reserves the right to request a copy of a job description, organizational chart, and/or CV/resume to provide clarifying information for any application.*

Examples of DM leadership positions that may be considered eligible, provided that the position meets the functional responsibility noted above, could include:

1. Medical Advisor for Disaster Policy
2. Health System Disaster Preparedness Consultant
3. Medical Director for Disaster Response
4. State or Federal Urban Search and Rescue Member
5. State or Federal Disaster Medicine Assistance Team Member
6. State or Federal Response Physician
7. Chief Medical Officer for Emergency Preparedness
8. Deputy Secretary of Health Preparedness and Community Protection
9. System Medical Director for Emergency Preparedness
10. COVID-19 Response Director
11. Director of (Public Health) Emergency Preparedness and Response
12. State Health Officer

The 2023 Model Core Content of Disaster Medicine

Bryan J. Wexler, MD, MPH;¹  Carl Schultz, MD;²  Paul D. Biddinger, MD;³ Gregory Ciottonne, MD;⁴ Angela Cornelius, MD, MA;⁵ Robert Fuller, MD;⁶ Roxanna Lefort, MD, MPH;⁷ Andrew Milsten, MD, MS;⁸  James Phillips, MD;⁹  Ira Nemeth, MD¹⁰

1. WellSpan Health, WellSpan York Hospital, Department of Emergency Medicine, York, Pennsylvania USA
2. UC Irvine School of Medicine, Orange, California USA
3. Harvard Medical School, Harvard University TH Chan School of Public Health, Boston, Massachusetts USA
4. Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts USA
5. John Peter Smith Hospital, Fort Worth Emergency Medicine Residency, Fort Worth, Texas USA
6. University of Connecticut School of Medicine, Farmington, Connecticut USA
7. Indiana University School of Medicine, Dept of Emergency Medicine, Riley Hospital for Children, Indianapolis, Indiana USA
8. UMass Chan Medical School, Worcester, Massachusetts USA
9. The George Washington University Hospital, Department of Emergency Medicine, Washington, DC USA
10. Henry JN Taub Department of Emergency Medicine, Baylor College of Medicine, Houston, Texas USA

Correspondence:

Bryan J. Wexler
WellSpan York Hospital
Department of Emergency Medicine
1001 S George Street, York, Pennsylvania
17403 USA
E-mail: bwexler@wellspan.org

Conflicts of interest/funding/disclosures: The authors have no financial disclosures.

Keywords: curriculum; Disaster Medicine; education

Abbreviations:

ACEP: American College of Emergency Physicians
ACGME: Accreditation Council on Graduate Medical Education
DM: Disaster Medicine

Abstract

Introduction: Disaster Medicine (DM) is the clinical specialty whose expertise includes the care and management of patients and populations outside conventional care protocols. While traditional standards of care assume the availability of adequate resources, DM practitioners operate in situations where resources are not adequate, necessitating a modification in practice. While prior academic efforts have succeeded in developing a list of core disaster competencies for emergency medicine residency programs, international fellowships, and affiliated health care providers, no official standardized curriculum or consensus has yet been published to date for DM fellowship programs based in the United States.

Study Objective: The objective of this work is to define the core curriculum for DM physician fellowships in the United States, drawing consensus among existing DM fellowship directors.

Methods: A panel of DM experts was created from the members of the Council of Disaster Medicine Fellowship Directors. This council is an independent group of DM fellowship directors in the United States that have met annually at the American College of Emergency Physicians (ACEP)'s Scientific Assembly for the last eight years with meeting support from the Disaster Preparedness and Response Committee. Using a modified Delphi technique, the panel members revised and expanded on the existing Society of Academic Emergency Medicine (SAEM) DM fellowship curriculum, with the final draft being ratified by an anonymous vote. Multiple publications were reviewed during the process to ensure all potential topics were identified.

Results: The results of this effort produced the foundational curriculum, the 2023 Model Core Content of Disaster Medicine.

Conclusion: Members from the Council of Disaster Medicine Fellowship Directors have developed the 2023 Model Core Content for Disaster Medicine in the United States. This living document defines the foundational curriculum for DM fellowships, providing the basis of a standardized experience, contributing to the development of a board-certified subspecialty, and informing fellowship directors and DM practitioners of content and topics that may appear on future certification examinations.

Wexler BJ, Schultz C, Biddinger PD, Ciottonne G, Cornelius A, Fuller R, Lefort R, Milsten A, Phillips J, Nemeth I. The 2023 Model Core Content of Disaster Medicine. *Prehosp Disaster Med.* 2023;00(00):1–8.

EMS: Emergency Medical Services
SAEM: Society of Academic Emergency Medicine

Received: September 28, 2023

Accepted: October 10, 2023

doi:[10.1017/S1049023X23006556](https://doi.org/10.1017/S1049023X23006556)

© The Author(s), 2023. Published by Cambridge University Press on behalf of the World Association for Disaster and Emergency Medicine. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.



Introduction

Disaster Medicine (DM) is the clinical specialty whose expertise includes the care and management of patients and populations outside conventional care protocols. While traditional standards of care assume the availability of adequate resources, DM practitioners plan for, mitigate against, operate in, and lead recovery from situations where the available resources are not adequate, necessitating modifications to conventional practice. The specialty practices in all environments, from traditional hospital settings to austere locations, and supports the provision of care for all age groups and conditions. It includes administrative leadership of emergency preparedness teams and systems as well as planning and mitigation strategies across the entire disaster cycle. Disaster Medicine also includes expertise in the rational, effective, and ethical adjustment of resource allocation and treatment algorithms during times of resource scarcity to provide the optimal level of health care to the greatest number possible given the circumstances of a disaster or public health emergency.

As recent history demonstrates, disasters resulting from environmental and human activity are growing in complexity, while society's vulnerabilities to such events are increasing due to a multitude of factors related to the modern world. These events create unique clinical situations that physicians have not anticipated, and for which they are inadequately prepared by traditional medical educational systems to address. Specifically, most training algorithms fail because they were not designed to guide management of the health care requirements of patients when these needs exceed available resources. As an example, the coronavirus disease 2019/COVID-19 pandemic demonstrated how unprepared the medical system is for large-scale medical emergencies, such as a global pandemic, particularly from the standpoint of medical practice outside of established standards of care. Equipment, pharmaceutical, and staff shortages required physicians to make difficult decisions and, in some cases, adopt scarce resource allocation protocols.

The specialty of DM incorporates knowledge and skills from multiple disparate fields including, but not limited to, emergency medicine, prehospital medicine, public health crisis response, critical care, primary care and preventative medicine, ethics, health equity, risk communication, and emergency management, among others. Within DM, elements from all these fields converge into a cohesive practice aimed at reducing mortality and morbidity by optimizing resource use in the event of a disaster. The scope of this multidisciplinary expertise and its requisite associated clinical and administrative skills defines the practice of DM as unique among existing medical specialties.

When applied to health care specifically, a disaster implies a severe imbalance in patient needs and available resources. The ability to effectively and efficiently utilize limited assets to provide maximal benefit for an affected population requires a keen understanding of resource utilization and population health. In response to such increasingly austere environments, physicians with DM specialty training are needed to transition patient care efficiently from conventional operations to progressively limited resource utilization and treatment strategies. Individuals possessing this training can plan, implement, and assess appropriate patient management in the highly variable situations and locations in which the provision of medical care may be required. Prior to disaster-related events, DM specialists guide implementation of preventative and mitigating actions to limit the impact of a future disaster, optimizing the ability to continue providing patients the conventional standard of care. However, if a patient surge is so vast,

or a reduction in available resources so profound, that existing standards of care are not possible, specialists in DM are uniquely qualified to ethically guide stakeholders and leaders through the allocation of constrained resources during a crisis.

Disaster Medicine's unique combination of clinical, administrative, and ethical expertise, in addition to its requisite skills focused on the delivery of medical care in nontraditional practice environments, is not found in any current medical specialty. Though selected elements may be found in, and are drawn from, other defined areas of medicine, no other subspecialty holistically focuses on such expertise. For example, the existing subspecialty of Emergency Medical Services (EMS) addresses mass-casualty response in a very limited capacity and viewed through the lens of the prehospital setting only.¹ Toxicology practitioners obtain expertise in treating chemical poisonings, but the core content does not address planning, preparation, or response to a mass-casualty nerve agent attack.² While prior academic efforts have succeeded in developing a list of core disaster competencies for emergency medicine residency programs, international fellowships, and affiliated health care providers, no official standardized curriculum or consensus has yet been published to date for DM fellowship programs based in the United States.³⁻⁵

Methods

The initial outline of the 2023 Model Core Content of Disaster Medicine was developed with support from a task force of DM physicians convened by the American College of Emergency Physicians (ACEP; Irving, Texas USA) Disaster Preparedness and Response Committee. This group incorporated the previous DM curriculum used by the Society of Academic Emergency Medicine (SAEM; Des Plaines, Illinois USA), aimed at standardizing SAEM-approved DM fellowships.⁶ The draft curriculum was presented to the Council of Disaster Medicine Fellowship Directors. This council of active DM fellowship directors was formed in 2015, meeting annually as an interim guiding body in the absence of formal sub-specialization recognition. The presented draft curriculum was updated by drawing from existing individual DM fellowship curricula provided by the active fellowship directors on the Council of Disaster Medicine Fellowship Directors. All topics were cross-referenced with the Accreditation Council on Graduate Medical Education's (ACGME; Chicago, Illinois USA) six core competencies for the practice of medicine.⁷ After a new draft was composed by the task force, using a modified Delphi technique, the DM fellowship directors on the Council of Disaster Medicine Fellowship Directors individually provided additional review and input on all aspects, incorporating material from existing DM textbooks previously absent from the curriculum.^{8,9} The option to provide anonymous feedback was available. The proposed curriculum was revised over three additional iterations to create a new, more comprehensive document that was subsequently validated and approved by the voting members of the council, defined as having an active DM fellowship, in an anonymous, unanimous vote with none voting against the motion.

Results

To address the need for a standardized core curriculum supporting the training of DM practitioners in the United States, the Council of Disaster Medicine Fellowship Directors created a new curriculum. This model is recommended as the foundational course of study for physicians training in formal United States DM fellowship programs (Table 1).

	ACGME and ABMS Core Competencies					
	Patient Care	Medical Knowledge	Practice-Based Learning	Professionalism	Interpersonal Skills	Systems-Based Practice
Principles Of Disaster Medicine (1)	X	X	X			X
Conventional Standards Of Care (1.1)	X	X	X			X
Contingency Standards of Care (1.2)	X	X	X			X
Crisis Standards Of Care (1.3)	X	X	X	X	X	X
Disaster Triage Concepts (1.4)	X	X	X	X	X	X
Scarce Resource Allocation Protocols (1.5)	X	X	X	X	X	X
Medical Oversight of Emergency Management Systems (2)	X	X	X	X	X	X
The Disaster Cycle (2.1)				X		X
Evolution of Emergency Management (2.2)				X		X
Local Disaster Response (2.3)				X	X	X
National Disaster Response (2.4)				X	X	X
Disaster Medical Assistance Teams (DMAT) (2.4.1)				X	X	X
National Response Framework (2.5)				X	X	X
National Incident Management System (2.5.1)				X	X	X
ICS Basics (2.5.2)				X	X	X
Hospital Preparedness Program (2.5.3)				X	X	X
Strategic National Stockpile (2.5.4)	X					X
National Disaster Management System (2.5.5)				X	X	X
International Systems (2.6)						X
UN Cluster System (2.6.1)						X
Emergency Medical Teams & World Health Organization (2.6.2)						X
International Search and Rescue Advisory Group (INSARAG) (2.6.3)						X
Nongovernmental Organizations (NGO) (2.7)						X
Exercise Design and Evaluation (2.8)			X	X		X
Public Health and Disaster Medicine (3)	X	X		X		X
Role of Public Health Agencies in Disaster Medicine (3.1)						X
Public Health Surveillance (3.2)		X	X			X
Needs Assessments (3.3)	X	X				X
Sphere Standards; Water, Sanitation, and Hygiene (WASH) (3.3.1)	X	X				
Complex Public Health Emergencies (3.4)	X	X	X		X	X
Displaced Populations (3.4.1)	X	X			X	X
Medical Care for Refugee Populations (3.4.2)	X	X			X	X
Climate Change and Disaster Medicine (3.5)		X				

Wexler © 2023 Prehospital and Disaster Medicine

Table 1. The Model Core Content of Disaster Medicine (*continued*)

	ACGME and ABMS Core Competencies					
	Patient Care	Medical Knowledge	Practice-Based Learning	Professionalism	Interpersonal Skills	Systems-Based Practice
Vaccine and Pharmaceutical Distribution (3.6)	X	X		X	X	X
Quarantine/Isolation (3.7)		X		X	X	X
Health Care Disaster Preparedness (4)	X	X	X	X	X	X
Hazard Vulnerability Analysis (4.1)		X	X			X
Drill and Exercise Design (4.1.1)						
Hospital Incident Command Systems (4.2)				X	X	X
Emergency Operations Plans for the Health Care Environment (4.3)		X				X
Command Center Operations (4.4)				X	X	X
Health Care Coalitions and Community Integration (4.5)				X	X	X
Information Management/Communications (4.6)				X	X	X
Medical Surge Capacity (4.7)	X	X				X
Medical Surge Capability (4.8)	X	X				X
Mass-Casualty Incidents (4.9)	X	X				X
Disaster Preparedness and Resiliency (5)	X	X	X	X	X	X
Personal Preparedness (5.1)				X		X
Organizational Preparedness and Resiliency (5.2)	X	X	X	X	X	X
Business Continuity (5.2.1)						
Hospital Preparedness (5.3)	X	X	X	X	X	X
Community Preparedness and Resiliency (5.4)		X	X	X	X	X
National Preparedness (5.5)				X		X
Rehabilitation and Reconstruction (5.6)						X
Operations and Logistics (6)	X	X	X	X	X	X
Field Operations and Logistics (6.1)	X		X			X
Mass-Casualty Care in the Field (6.2)	X		X			
Field Disaster Triage (6.3)	X	X				X
Field Stabilization, Treatment, and Transport (6.4)	X	X				
Disaster Operations (6.5)						X
Decontamination in the Field (6.6)	X		X			
Volunteer Management (6.7)				X	X	X
Operational Continuity (6.8)						X
Care of Animals (6.9)			X			
Alternative Care Sites (6.10)						X
Mass-Fatality and Mortuary Care (6.11)		X		X	X	X
Psychological Aspects of Disaster Medicine (7)	X	X	X	X	X	X
Psychological Effects and Trauma of Disaster (7.1)	X	X			X	X
Psychological First Aid (7.2)	X	X	X		X	
Personal Mental Resiliency (7.3)		X	X	X	X	

Wexler © 2023 Prehospital and Disaster Medicine

Table 1. The Model Core Content of Disaster Medicine (*continued*)

	ACGME and ABMS Core Competencies					
	Patient Care	Medical Knowledge	Practice-Based Learning	Professionalism	Interpersonal Skills	Systems-Based Practice
Ethical and Legal Issues in Disaster Medicine (8)	X			X	X	X
Ethics of Disaster Medicine (8.1)	X			X	X	X
Liability in Disaster Response (8.2)				X	X	X
Disaster Finance (8.3)						X
Stafford Act (8.3.1)						X
Vulnerable Populations (8.4)						X
Prehospital Disaster Medicine (9)	X	X	X			X
EMS Disaster Operations (9.1)	X	X				X
Transportation Disasters (9.1.1)		X				
Search and rescue (9.1.2)	X	X				
Tactical EMS (9.1.3)			X			X
Active Threats (9.2)	X		X			X
Care Under Fire (9.2.1)	X		X			
Scene Safety and Security in the Field (9.3)	X	X				X
Fireground Safety (9.3.1)						X
Structural Collapse (9.3.2)	X	X				
Vehicle Extraction (9.3.3)	X	X				
Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) (10)	X	X	X	X	X	X
Chemical Agents (10.1)	X	X				
Recognition and Clinical Treatment (10.1.1)	X	X				
Blister Agents (10.1.1.1)	X	X				
Lewisite (10.1.1.1.1)	X	X				
Mustard (10.1.1.1.2)	X	X				
Choking Agents (10.1.1.2)	X	X				
Anhydrous Ammonia (10.1.1.2.1)	X	X				
Chlorine (10.1.1.2.2)	X	X				
Phosgene (10.1.1.2.3)	X	X				
Asphyxiant Agents (10.1.1.3)	X	X				
Cyanide (10.1.1.3.1)	X	X				
Nerve Agents (10.1.1.4)	X	X				
MCI Triage and Considerations for Chemical Agents (10.1.2)	X	X		X	X	
Pediatrics and Chemical Exposure (10.1.3)	X	X				
Chemical Safety (10.1.4)						X
Decontamination (10.1.4.1)	X	X	X			
Biological Disasters (10.2)	X	X	X	X	X	X
Category A Bioterrorism Agents (10.2.1)	X	X				
Anthrax (10.2.1.1)	X	X				
Botulism (10.2.1.2)	X	X				
Smallpox (10.2.1.3)	X	X				
Tularemia (10.2.1.4)	X	X				
Viral Hemorrhagic Fevers (10.2.1.5)	X	X				

Wexler © 2023 Prehospital and Disaster Medicine

Table 1. The Model Core Content of Disaster Medicine (*continued*)

	ACGME and ABMS Core Competencies					
	Patient Care	Medical Knowledge	Practice-Based Learning	Professionalism	Interpersonal Skills	Systems-Based Practice
Yersinia Pestis (10.2.1.6)	X	X				
Clinical Diagnosis and Treatment (10.2.2)	X	X				
MCI Triage and Considerations for Biological Agents (10.2.3)	X	X	X	X	X	
Biological Safety (10.2.4)						X
Epidemiologic and Medical Countermeasures (10.2.5)	X	X				
Radiation/Nuclear Events (10.3)	X	X	X	X	X	X
Acute Radiation Syndrome (10.3.1)	X	X				
Timing of Medical and Surgical Interventions (10.3.2)	X	X				
Contamination and Irradiation (10.3.3)	X	X				
Decontamination (10.3.3.1)	X	X	X			
Medical Countermeasures for Radiation Contamination (10.3.4)	X	X				
MCI Triage and Considerations for Radioactive/Nuclear Events (10.3.5)	X	X	X	X	X	
Pandemics/Emerging Infectious Diseases (10.4)	X	X	X	X	X	X
Epidemiology (10.4.1)		X				X
Mass Care During Pandemics (10.4.2)	X	X		X	X	X
Medical Countermeasures (10.4.3)	X	X				X
Pandemic Triage (10.4.4)	X	X	X	X	X	
Hazardous Materials (HAZMAT) (10.5)		X	X			
Personal Protective Equipment (PPE) (10.5.1)		X	X			
Blast Injuries (10.6)	X	X				
Crush Injuries (10.7)	X	X				
Burns (10.8)	X	X	X			
Mass Burn Care (10.8.1)	X	X	X			
Mass Care and Environmental Disasters (11)	X	X				X
Climate Change (11.1)						X
Drought (11.2)						X
Earthquakes (11.3)	X	X				
Flooding (11.4)	X	X				
Heat Emergencies (11.5)	X	X				
Hurricanes/Cyclones/Typhoons (11.6)	X	X				X
Tornadoes (11.7)	X	X				
Volcanic Eruptions (11.8)	X	X				
Wildfires (11.9)						X
Winter Storms (11.10)	X	X				
Mass-Gathering Medicine (12)	X	X		X	X	X
Mass Gatherings (12.1)		X				X
Event Medicine Planning (12.1.1)	X			X		X

Wexler © 2023 Prehospital and Disaster Medicine

Table 1. The Model Core Content of Disaster Medicine (*continued*)

	ACGME and ABMS Core Competencies					
	Patient Care	Medical Knowledge	Practice-Based Learning	Professionalism	Interpersonal Skills	Systems-Based Practice
Stampede Injuries (12.1.2)	X					
Civil Unrest (12.2)				X	X	X
Communications (13)				X	X	
Crisis and Emergency Risk Communication (13.1)			X	X	X	X
Media Engagement (13.1.1)				X	X	
Communication Systems and Informatics (13.2)						X
Social Media and Disasters (13.3)				X	X	X
Technology and Disaster Medicine (14)	X	X	X			X
Technological Disasters (14.1)						X
Utility Failure (14.1.1)						X
Informatics (14.2)						X
Electronic Health Record Compromise (14.2.1)		X				X
Disaster Modeling and Simulation (14.3)			X			
Crisis Mapping (14.4)						X
Patient Tracking (14.5)	X					X
Telemedicine (14.6)	X		X			X
Ultrasound (14.7)	X	X	X			
Disaster Medicine Research (15)						
Journal Club (15.1)		X	X			
Research basics (15.2)		X				X

Wexler © 2023 Prehospital and Disaster Medicine

Table 1. (continued). The Model Core Content of Disaster Medicine

Abbreviations: ACGME, Accreditation Council on Graduate Medical Education; ABMS, American Board of Medical Specialties; ICS, Incident Command Systems; EMS, Emergency Medical Services; MCI, Mass-Casualty Incident.

Discussion

The 2023 Model Core Content of Disaster Medicine approaches each domain within DM through the lens of the disaster medical specialist, drawing from best practices to provide the best possible care under adverse circumstances. The resultant curriculum is a living document that is intended to be reviewed and updated periodically to address the evolving field of DM. It is not expected that fellowships will be teaching the curriculum exclusively. Some programs may have special areas of focus or interests that they wish to highlight in their fellowship training. However, all programs are expected to utilize the curriculum to provide a consistent and comprehensive knowledge base for graduating fellows.

Official recognition of DM as a board-certified subspecialty will lead to the development of training programs producing specialists with a known and consistent professional expertise. Disaster Medicine experts will lead efforts to provide education, training, comprehensive emergency operational plans, and disaster medical direction prior to and during a crisis. This Model Core Content document outlines the comprehensive knowledge base and skills DM specialists are expected to master and that may appear on future certification examinations.

Limitations

The Model Core Content attempts to minimize overlap among its topics; however, some areas are integrated and may be covered in different ways in other sections. It is expected the content will continue to evolve as the field of DM develops and additional needs and informational gaps are identified. The 2023 Model Core Content of Disaster Medicine defines the foundational curriculum for DM physician fellowships in the United States, provides the basis of a standardized experience, and contributes to the future development of a board-certified subspecialty. However, the recommended content may not necessarily translate to other educational systems external to the United States.

Additional limitations reside within the Delphi methodology itself. In this work, the expert panel included the directors responsible for the education of fellows. However, the panel was limited to the Council of Disaster Medicine Fellowship Directors and there is potential for additional views not represented, such as from DM fellowships whose existence was unknown to the council at the time of the curriculum development. Furthermore, while anonymous feedback in each iteration was available, some chose to make their suggestions public, potentially influencing other panelists as open discussion was also utilized frequently between

panelists during evaluation between iterations. However, given the final anonymous ratification, the authors believe this potential influence was not significant.

Conclusion

The 2023 Model Core Content of Disaster Medicine is a living document that defines the foundational curriculum for DM fellowships, providing the basis of a standardized experience, contributing to the development of a board-certified subspecialty, and informing fellowship directors and DM practitioners of

content and topics that may appear on future certification examinations.

Acknowledgements

The authors would like to thank the ACEP Disaster Preparedness and Response Committee and the Council of Disaster Medicine Fellowship Directors for their support.

Author Contributions

BW drafted the manuscript and all authors contributed substantially to its revision. BW takes responsibility for the paper as a whole.

References

1. Sandifer SP, Wexler BJ, Flamm A. Comparison of disaster medicine education in emergency medicine residency and Emergency Medical Services fellowship in the United States. *Prehosp Disaster Med.* 2023;38(3):378–383.
2. Hendrickson RG, Bania TC, Baum CR, et al. The 2021 Core Content of Medical Toxicology. *J Med Toxicol.* 2021;17(4):425–436.
3. Walsh L, Subbarao I, Gebbe K, et al. Core competencies for disaster medicine and public health. *Disaster Med Public Health Prep.* 2012;6(1):44–52.
4. Sarin RR, Biddinger P, Brown J, et al. Core Disaster Medicine Education (CDME) for emergency medicine residents in the United States. *Prehosp Disaster Med.* 2019;34(5):473–480.
5. Koenig KL, Bey T, Schultz CH. International disaster medical sciences fellowship: model curriculum and key considerations for establishment of an innovative international educational program. *West J Emerg Med.* 2009;10(4):213–219.
6. Society for Academic Emergency Medicine. Disaster Medicine Fellowship Two Year Program Criteria. <https://www.saem.org/about-saem/Services/fellowship-approval-program/disaster-medicine-fellowship>. Accessed February 15, 2023.
7. Accreditation Council for Graduate Medical Education. 2022 Common Program Requirements. https://www.acgme.org/globalassets/pfasets/programrequirements/cprfellowship_2022v3.pdf Accessed February 15, 2023.
8. Koenig KL, Schultz CH, (eds). *Koenig and Schultz's Disaster Medicine: Comprehensive Principles and Practice*. 2nd ed. Cambridge, New York USA: Cambridge University Press; 2016.
9. Ciotto GR, Burkle FM, Fares S, Molloy MS, Peleg K, Sarin RR, Suner S, (eds). *Ciotto's Disaster Medicine*. 3rd ed. Philadelphia, Pennsylvania USA: Elsevier; 2023.

Draft Program Requirements for Graduate Medical Education in Disaster Medicine (DM)

The DM fellowship is anticipated to be a minimum of **12 months in length**. This duration was approved by the American Board of Emergency Medicine (ABEM) to ensure standardized, uniform training across all specialties.

Definition of Subspecialty

Disaster Medicine is a medical subspecialty that prepares physicians to become system-level leaders, architects, and clinicians who provide disaster medical care and design, coordinate, and manage the infrastructure, policies, ethical frameworks, resource allocation, workforce training, and multidisciplinary collaboration essential for effective mitigation, preparation, response, and recovery throughout all phases of disasters affecting communities and healthcare systems.

Section 1: Oversight

Sponsoring Institution

1.1. The program must be sponsored by one ACGME-accredited Sponsoring Institution. (Core)

1.2. The program, with approval of its Sponsoring Institution, must designate a primary education site. (Core)

1.2.a. The Sponsoring Institution must also sponsor an Accreditation Council for Graduate Medical Education (ACGME)-accredited residency program in either Emergency Medicine, Pediatrics, Preventive Medicine, or Surgery. (Core)

Participating Sites

1.3. There must be a program letter of agreement (PLA) between the program and each participating site that governs the relationship between the program and the participating site providing a required assignment. (Core)

1.3.a. The PLA must be renewed at least every 10 years. (Core)

1.3.b. The PLA must be approved by the designated institutional official (DIO). (Core)

1.4. The program must monitor the clinical learning and working environment at all participating sites. (Core)

1.5. At each participating site, there must be one faculty member, designated by the program director, who is accountable for fellow education for that site, in collaboration with the program director. (Core)

1.6. The program director must submit any additions or deletions of participating sites routinely providing an educational experience, required for all fellows, of one month full-time equivalent (FTE) or more through the ACGME's Accreditation Data System (ADS). (Core)

1.6.d. The addition of participating sites routinely providing any required experience, regardless of length, must be submitted through ADS, and if the participating site is more than 60 miles away, it must be approved by the Review Committee prior to the fellows starting the experience. (Core)

1.6.e. The program should ensure that fellows are not unduly burdened by required rotations at geographically distant sites. (Core)

Resources

1.7. The program, in partnership with its Sponsoring Institution, must ensure the availability of adequate resources for fellow education. (Core)

1.7.a. The program must ensure that resources and training environments are available to provide education and clinical skills in disaster management. (Core)

1.7.b. The following specialized resources must be available at the primary clinical site or at a participating site:

1.7.b.1. Established disaster planning and response resources and operational experiences that cover the entire disaster management cycle (mitigation, preparedness, response, and recovery). (Core)

1.7.b.2. Access to health system or regulatory environments necessary to learn and develop strategies for scarce resource allocation. (Core)

1.7.b.3. Access to administrative or leadership roles relevant to fiscal and personnel in the context of operational planning for large-scale incidents or events. (Core)

1.7.c. Fellows must be provided with prompt, reliable systems for communication and interactions with supervisory physicians. (Core)

1.8. The program, in partnership with its Sponsoring Institution, must ensure healthy and safe learning and working environments that promote fellow well-being and provide for:

1.8.a. Access to food while on duty. (Core)

1.8.b. Safe, quiet, clean, and private sleep/rest facilities are available and accessible for fellows with proximity appropriate for safe patient care, *if the fellows are assigned in-house call*. It is acknowledged that during a declared disaster or an active disaster response, temporary atypical accommodations may be necessary. (Core)

1.8.c. Clean, private facilities for lactation with refrigeration. It is acknowledged that during a declared disaster or active disaster response, temporary atypical standards may apply. (Core)

1.8.d. Security and safety measures appropriate to the participating site. (Core)

1.8.e. Accommodations for fellows with disabilities consistent with the Sponsoring Institution's policy. (Core)

1.9. Fellows must have ready access to subspecialty-specific and other appropriate reference material in print or electronic format. This must include access to electronic medical literature databases with full-text capabilities. (Core)

1.9.a. Resources should include access to relevant Disaster Medicine literature. (Detail)

Other Learners and Health Care Personnel

1.10. The presence of other learners and other health care personnel (including but not limited to residents from other programs, subspecialty fellows, and advanced practice providers) must not negatively impact the appointed fellows' education. (Core)

1.10.a. Effective disaster medicine teams require collaboration with various interprofessional personnel, including but not limited to consulting physicians, EMS clinicians, nurses, firefighters, and law enforcement officers. (Detail)

Section 2: Personnel

2.1. Program Director

There must be one faculty member appointed as program director with authority and accountability for the overall program, including compliance with all applicable program requirements. (Core)

2.2. The Sponsoring Institution's Graduate Medical Education Committee (GMEC) must approve a change in program director and must verify the program director's licensure and clinical appointment. (Core)

2.2.a. Final approval of the program director resides with the Review Committee. (Core)

2.2.b. The program must demonstrate retention of the program director for a length of time adequate to maintain continuity of leadership and program stability. (Core)

2.3. The program director and, as applicable, the program's leadership team must be provided with support adequate for the administration of the program based upon its size and configuration. (Core)

2.3.b. For programs approved for one to three fellow positions, the program director must be provided with no less than 0.2 FTE of dedicated time and support for administration of the program. (Core)

2.3.c. For programs approved for four or more fellow positions, the program director must be provided with no less than 0.3 FTE of dedicated time and support for administration of the program. (Core)

2.4. Qualifications of the Program Director

The program director must possess subspecialty expertise and qualifications acceptable to the Review Committee. (Core)

2.4.a. The program director must possess current certification in the Disaster Medicine subspecialty (once certification is available) or possess subspecialty qualifications that are acceptable to the Review Committee. (Core)

2.4.b. The program director must have at least three years' experience as a core physician faculty member in an ACGME-accredited residency or fellowship program. (Core)

2.4.c. The program director must have demonstrated experience in an educational leadership role. (Core)

2.4.d. The program director and any assistant or associate program directors must be core physician faculty members. (Core)

2.4.e. The program director must demonstrate evidence of ongoing involvement in scholarly activity. (Core)

2.4.f. The program director must demonstrate ongoing clinical activity in the practice of emergency medical services.

2.4.g. The program director must demonstrate ongoing clinical activity in disaster medicine, demonstrating expertise across the disaster management cycle (mitigation, preparedness, response, and recovery). (Core)

2.5. Program Director Responsibilities

The program director must have responsibility, authority, and accountability for: administration and operations; teaching and scholarly activity; fellow recruitment and

selection, evaluation, and promotion of fellows, and disciplinary action; supervision of fellows; and fellow education in the context of disaster medicine. (Core)

Program Director responsibilities 2.5.a. through 2.5.l. must align with ACGME Common Program Requirements (One-Year Fellowship) [657–665].

2.5.a. The program director must be a role model of professionalism. (Core)

2.5.b. The program director must design and conduct the program in a manner consistent with the needs of the community, the mission(s) of the Sponsoring Institution, and the mission(s) of the program. (Core)

2.5.c. The program director must administer and maintain a learning environment conducive to educating fellows across the ACGME Competency domains. (Core)

2.5.d. The program director must have the authority to approve or remove physicians and non-physicians as faculty members at all participating sites, including the designation of core faculty members, and must develop and oversee a process to evaluate candidates prior to approval. (Core)

2.5.e. The program director must have the authority to remove fellows from supervising interactions and/or learning environments that do not meet the program's standards. (Core)

2.5.f. The program director must submit accurate and complete information required and requested by the DIO, GMEC, and ACGME. (Core)

2.5.g. The program director must provide a learning and working environment in which fellows have the opportunity to raise concerns, report mistreatment, and provide feedback in a confidential manner as appropriate, without fear of intimidation or retaliation. (Core)

2.5.h. The program director must ensure the program's compliance with the Sponsoring Institution's policies and procedures related to grievances and due process, including when action is taken to suspend or dismiss, rather than promote or renew, the appointment of a fellow. (Core)

2.5.i. The program director must ensure the program's compliance with the Sponsoring Institution's policies and procedures on employment and nondiscrimination. (Core)

2.5.j. The program director must document verification of education for all fellows within 30 days of completion of or departure from the program. (Core)

2.5.k. The program director must provide verification of an individual fellow's education upon the fellow's request, within 30 days. (Core)

2.5.l. The program director must provide applicants who are offered an interview with information related to their eligibility for the relevant specialty board examination(s). (Core)

2.6. Faculty

2.6. There must be a sufficient number of faculty members with competence to instruct and supervise all fellows in the specialized domains of the DM Core Content. (Core)

2.6.a. Programs approved for four or more fellow positions must appoint an assistant or associate program director who is clinically active in Disaster Medicine. (Core)

2.6.b. Consultants and/or program faculty members should be available for consultation and academic lectures. (Detail)

2.6.b.1. There should be faculty members or consultants available to the program from within the department or institution with background and focused experience in: scarce resource allocation development, public health surveillance, disaster finance/funding mechanisms, risk reduction, rehabilitation and reconstruction, complex public health emergencies, and international disaster response systems (e.g., UN Cluster System). (Detail)

2.7. Faculty Responsibilities

Faculty members must be role models of professionalism, demonstrating commitment to high-quality care and dedication to fellow education. (Core)

2.7.a. Faculty members must demonstrate commitment to the delivery of safe, high-quality, population-centered care during a declared disaster or an active disaster response. (Core)

2.7.b. Faculty members must demonstrate a strong interest in the education of fellows, including devoting sufficient time to the educational program to fulfill their supervisory and teaching responsibilities. (Core)

2.7.c. Faculty members must administer and maintain an educational environment conducive to educating fellows. (Core)

2.7.d. Faculty members must regularly participate in organized clinical discussions, rounds, journal clubs, and conferences. (Core)

2.7.e. Faculty members must pursue faculty development designed to enhance their skills at least annually. (Core)

2.8. Faculty Qualifications

Faculty members must have appropriate qualifications in their field and hold appropriate institutional appointments. (Core)

2.9. Subspecialty Physician Faculty Members

Subspecialty physician faculty members must have current certification in Disaster Medicine by the American Board of Emergency Medicine, the American Board of Preventive Medicine, the American Board of Surgery, or other qualifying ABMS Board, or possess qualifications judged acceptable to the Review Committee. (Core)

2.9.a. Any other specialty physician faculty members must have current certification in their specialty by the appropriate American Board of Medical Specialties (ABMS) member board or American Osteopathic Association (AOA) certifying board, or possess qualifications judged acceptable to the Review Committee. (Core)

2.10. Core Faculty

Core faculty members must have a significant role in the education and supervision of fellows and must devote a significant portion of their entire effort to fellow education and/or administration, and must, as a component of their activities, teach, evaluate, and provide formative feedback to fellows. (Core)

2.10.a. Faculty members must complete the annual ACGME Faculty Survey. (Core)

2.10.b. Including the program director and assistant/associate program director, the program must have at least the number of physician core faculty members specified below with qualifications that meet requirement 2.9., whose practice makes them available for consultation by the fellows, and who devote a minimum (of five hours per week to the program. (Core)

Number of Approved Fellow Positions	Minimum Physician Core Faculty Members
0-3	3
4-6	4
7+	5

2.11. Program Coordinator

2.11. There must be a program coordinator. (Core)

2.11.a. The program coordinator must be provided with dedicated time and support adequate to the administration of the program, based on its size and configuration. (Core)

2.11.b. The program coordinator must be provided with support equal to a dedicated **minimum** of 0.2 FTE for administration of the program. (Core)

2.12. Other Program Personnel

The program, in partnership with its Sponsoring Institution, must jointly ensure the availability of necessary personnel for the effective administration of the program. (Core)

2.12.a. Contributors to effective interprofessional disaster medicine teams include consulting physicians from diverse backgrounds, paramedics, emergency medical technicians, nurses, emergency managers, public health professionals, and government officials involved in the systems-based planning and response to mass-casualty incidents or public health emergencies. (Detail)

Section 3: Fellow Appointments

3.1. Non-Competition Guarantee

Fellows must not be required to sign a non-competition guarantee or restrictive covenant. (Core)

3.2. Eligibility Requirements – Fellowship Programs

All required clinical education for entry into ACGME-accredited fellowship programs must be completed in an ACGME-accredited residency program, or a Royal College of Physicians and Surgeons of Canada (RCPSC)-accredited, Australasian College of Emergency Medicine-accredited Emergency Medicine (ACEM) training. (Core)

3.2.a. Fellowship programs must receive verification of each entering fellow's level of competence in the required field using ACGME, or Milestones evaluations from the core residency program. (Core)

3.2.a.1. Prior to entry into the program, fellows must have successfully completed a residency program that satisfies 3.2., excluding transitional year programs. (Core)

3.2.b. Fellow Eligibility Exception: Surgical Trainee Accommodation (DM Specific)

The Review Committee for Disaster Medicine will allow the following exception to the eligibility requirements to encourage participation from surgical specialties:

3.2.b.1. The completion of an ACGME-accredited disaster medicine fellowship (anticipated to be a minimum of 12 months in length) that is completed during a surgical specialty residency (e.g., Surgery, Orthopedic Surgery, Neurological Surgery) is permissible to meet eligibility requirements for subspecialty certification.

3.2.b.2. The timing of this embedded fellowship year must be pre-approved by the physician's primary specialty Board. ABEM defers to the primary surgical Board for its eligibility requirements for primary specialty certification.

3.2.c. An ACGME-accredited fellowship program may accept an exceptionally qualified international graduate applicant who does not satisfy the eligibility requirements listed in 3.2, but who does meet all of the following additional qualifications and conditions: (Core)

3.2.c.1. evaluation by the program director and fellowship selection committee of the applicant's suitability to enter the program, based on prior training and review of the summative evaluations of training in the core specialty; and, (Core)

3.2.c.2. review and approval of the applicant's exceptional qualifications by the GMEC; and, (Core)

3.2.c.3. verification of the Educational Commission for Foreign Medical Graduates (ECFMG) certification. (Core)

3.2.c.3.a. Applicants accepted through this exception must have an evaluation of their performance by the Clinical Competency Committee within 12 weeks of matriculation. (Core)

3.3. Fellow Complement

The program director must not appoint more fellows than approved by the Review Committee. (Core)

3.4. Fellow Transfers

The program must obtain verification of previous educational experiences and a summative competency-based performance evaluation prior to acceptance of a transferring fellow, and Milestones evaluations upon matriculation. (Core)

Section 4: Educational Program

The educational program must support the development of knowledgeable, skillful physicians who provide compassionate care, specifically focusing on the systems-level management of health care populations under resource-constrained conditions across the disaster cycle.

4.1. Length of Program

4.1. The educational program in Disaster Medicine must be a minimum of 12 months. (Core)

4.2. Educational Components

4.2. The curriculum must contain the following educational components:

4.2.a. A set of program aims consistent with the Sponsoring Institution's mission, the needs of the community it serves, and the desired distinctive capabilities of its graduates, which must be made available to program applicants, fellows, and faculty members. (Core)

4.2.b competency-based goals and objectives for each educational experience designed to promote progress on a trajectory to autonomous practice in their subspecialty. These must be distributed, reviewed, and available to fellows and faculty members; (Core)

4.2.c. delineation of fellow responsibilities for patient care, progressive responsibility for patient management, and graded supervision in their subspecialty; (Core)

4.2.d. Structured educational activities beyond direct patient care. (Core)

4.2.e. formal educational activities that promote patient safety-related goals, tools, and techniques. (Core)

ACGME Competencies

The program must integrate all ACGME Competencies into the curriculum, with a focus on applying them to all phases of Disaster Medicine.

4.3. ACGME Competencies – Professionalism

Fellows must demonstrate a commitment to professionalism and an adherence to ethical principles. (Core)

4.4. ACGME Competencies – Patient Care and Procedural Skills (Part A)

Fellows must be able to provide patient care that is patient- and family-centered, compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. (Core)

4.4.a Fellows must also demonstrate competence in the practice of patient evaluation and population-centered care in disaster medicine by: (Core)

4.4.a.1. Evaluating and treating acutely ill and injured patients under surge capacity conditions in real or simulated environments.

4.4.a.2. Determining the appropriate level of care, resources, transportation type, and response mode based on the patient's clinical condition and available resources. (Core)

4.4.a.3. Integrating relevant public health, social-behavioral, and economic factors (e.g., addressing vulnerable populations) into disaster response planning and patient management.

4.4.a.4. creating a care plan consistent with the challenges and the resource limitations of the out-of-hospital setting; (Core)

4.5. ACGME Competencies – Patient Care and Procedural Skills (Part B)

Fellows must be able to perform essential medical, diagnostic, and surgical procedures relevant to Disaster Medicine that are within the scope of their primary specialty. (Core)

4.5.a. Fellows must demonstrate competence in key index procedures/experiences, specifically related to operational readiness and field response within the scope of their primary specialty. This must include: (Core)

4.5.a.1. Participation in a mass casualty/disaster triage at an actual (preferred) or simulated event. (Core)

4.5.a.2. Participation in hazardous materials training and response at an actual (preferred) or simulated event. (Core)

4.5.a.3. Participation in technical rescue during an actual or simulated event (e.g., confined space, structural collapse, extrication). (Core)

4.5.a.4. Provision of medical oversight on-scene or remotely during an actual or simulated mass casualty/disaster event. (Core)

4.5.a.5. Conduction of an after-action review or system improvement audit following a response or simulated event.

4.5.b. If appropriate from a medical specialty perspective, may include:

4.5.b.1. management of a trapped limb in the out-of-hospital setting; (Core)

4.5.b.2. ultrasound in the out-of-hospital setting; (Core)

4.6. ACGME Competencies – Medical Knowledge

Fellows must demonstrate knowledge of the established and evolving biomedical, clinical, epidemiological, and administrative sciences specific to disaster medicine. (Core)

4.6.a. Fellows must demonstrate competence in their knowledge of the following: (Core)

4.6.a.1. The complete disaster management cycle: mitigation, preparedness, response, and recovery.

4.6.a.2. Principles of scarce resource allocation, including Crisis Standards of Care and ethical decision-making regarding scarce resource allocation protocols (e.g., ventilator rationing, pharmaceutical distribution).

4.6.a.3. Advanced knowledge of disaster response systems at the regional, state, federal, and international levels. This should include the National Response Framework (NRF), the National Incident Management System (NIMS), and the Incident Command System (ICS).

4.6.a.4. Disaster epidemiology, public health surveillance, complex public health emergencies (e.g., pandemics, war, humanitarian crisis), and the medical effects of Environmental Disasters (e.g., climate change, drought, flooding).

4.6.a.5. DM clinician health and wellness. (Core)

4.6.a.6. DM initial and continuing education. (Core)

4.7. ACGME Competencies – Practice-Based Learning and Improvement

Fellows must demonstrate the ability to engage in scholarly inquiry, critically appraise disaster medicine literature, and continuously improve systems based on self-evaluation. (Core)

4.7.a. Fellows must actively participate in real or simulated mass casualty/disaster events and formally conduct after-action reviews to identify systemic improvement opportunities. (Core)

4.8. ACGME Competencies – Interpersonal and Communication Skills

Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. (Core)

4.9. ACGME Competencies – Systems-Based Practice

Fellows must demonstrate an awareness of the health care system context and the ability to call effectively on resources to provide optimal population-centered care in a disaster setting. (Core)

4.9.a. Fellows must participate in the administrative and policy-making components required for disaster management: (Core)

4.9.a.1. Understand the principles of disaster care standards, policies, and procedures at the hospital, system, state, or federal level.

4.9.a.2. Understand the principles of operational leadership, including fiscal management, personnel management, and coordination of multi-agency responses (e.g., with FEMA, public health agencies, and NDMS).

4.9.a.3. Understand the principles of regulatory and policy development, including issues related to accreditation (e.g., Joint Commission) and disaster finance (e.g., Stafford Act).

4.10. Curriculum Organization and Fellow Experiences

The curriculum must be structured to optimize fellow educational experiences, including an appropriate blend of supervised patient care, administrative planning, operational experiences, and didactic events. (Core)

4.10.a. Clinical experiences should be structured to facilitate learning in a manner that allows the fellows to function as part of an effective interprofessional team that works together towards the shared goals of patient safety and quality improvement. (Detail)

4.11. Didactic and Clinical Experiences

4.11.a. Didactic Experiences: The core curriculum must include a didactic program based upon the **DM Core Content**.

4.11.a.1 .The didactic curriculum must include:

- a. Principles Of Disaster Medicine
 - i. Didactic instruction must address the foundational principles of Disaster Medicine, including the disaster cycle; transitions between conventional, contingency, and crisis standards of care; disaster triage; and ethical allocation of scarce resources across diverse clinical and operational environments.
- b. Medical Oversight of Emergency Management Systems
 - i. The curriculum must include education on the medical oversight of emergency management systems across the entire disaster cycle, including mitigation, preparedness, response, and recovery. Instruction must address local, regional, national, and international response frameworks; incident command systems; disaster medical assistance teams; interagency coordination; and the design, conduct, and evaluation of exercises and after-action processes.
- c. Public Health and Disaster Medicine
 - i. Didactic content must include the role of public health agencies in disasters, public health surveillance,

population needs assessments, complex public health emergencies, care of displaced and refugee populations, vaccine and pharmaceutical distribution, quarantine and isolation, and the impact of climate change on disaster response.

d. Health Care Disaster Preparedness

- i. Instruction must address health care system preparedness, including hazard vulnerability analysis, emergency operations planning, hospital incident command systems, command center operations, health care coalitions, information management, disaster communications, mass-casualty incident planning and response, and medical surge capacity and capability.

e. Disaster Preparedness and Resiliency

- i. The curriculum must include preparedness and resiliency at the personal, organizational, community, and national levels, including business continuity planning, workforce resilience, mitigation strategies, and post-disaster recovery, rehabilitation, and reconstruction.

f. Operations and Logistics

- i. Didactic experiences must address disaster operations and logistics, including field operations, mass-casualty care, disaster triage, stabilization and transport, volunteer management, operational continuity, alternative care sites, mass-fatality and mortuary operations, and care of animals during disasters.

g. Psychological Aspects of Disaster Medicine

- i. The curriculum must include the psychological effects and trauma of disaster, psychological first aid, responder mental health, personal resilience, and systems to support affected populations and responders.

h. Ethical and Legal Issues

- i. Didactic instruction must address ethical and legal issues in disaster medicine, including disaster ethics, professional liability, disaster finance mechanisms, relevant federal statutes, and the care of vulnerable populations during disasters and public health emergencies.

i. Prehospital Disaster Medicine

- i. The curriculum must include prehospital disaster medicine, including EMS disaster operations,

transportation disasters, search and rescue, tactical EMS, active threat response, care under fire, scene safety and security, fireground safety, structural collapse, and vehicle extraction.

- j. Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Agents
 - i. Didactic content must include CBRNE preparedness and response, including recognition and clinical management of specific exposures, personal protective equipment, decontamination, medical countermeasures, pandemics and emerging infectious diseases, mass-casualty considerations, and pediatric-specific considerations.
- k. Mass Care and Environmental Disasters
 - i. Instruction must include mass care related to environmental disasters, including climate-related events, earthquakes, floods, heat emergencies, hurricanes, tornadoes, wildfires, winter storms, and the health impacts of environmental disruption.
- l. Mass-Gathering Medicine
 - i. The curriculum must include event medicine planning, crowd health risks, stampede injuries, civil unrest, and coordination with public safety and emergency management agencies.
- m. Communications
 - i. Didactic experiences must include crisis and emergency risk communications, media engagement, communication systems and informatics, and the use of social media during disasters.
- n. Technology and Disaster Medicine
 - i. The curriculum must include technology's role and impact in disaster medicine, including technological disasters, utility failure, electronic health record compromise, disaster modeling and simulation, crisis mapping, patient tracking systems, telemedicine, and ultrasound.

4.11.b. There must be regularly scheduled didactic sessions. (Core)

4.11.b.1. There must be at least 120 synchronous hours of planned didactic experiences , dedicated to disaster medicine and developed by the program faculty members, which may include conferences with other organizations and fellowship programs. (Core)

4.11.b.2. Fellows must participate in planning and conducting didactic experiences and delivery of didactic experiences to their core residency program. (Core)

4.11.b.3. All planned didactic experiences must be supervised by faculty members. (Detail)

4.11.b.4. Each core physician faculty member must attend at least 24 hours, of planned didactic experiences. (Core)

4.11.b.5. DM faculty members must lead at least 60 hours of structured didactic fellow experiences. (Core)

4.11.b.6. Fellows must attend at least 96 hours of planned didactic experiences. (Core)

4.11.c. Operational Experiences: Fellows' required experience must include sustained involvement with external systems and entities important to disaster medicine education:

4.11. c.1. Exposure to agencies and organizations critical to disaster management. This should include local and regional agencies, public health agencies, and state emergency management offices.

4.11c.2. Collaboration across systems (e.g., Healthcare Coalitions, Medical Operations Coordination Centers, patient tracking, family reunification, crisis mapping)

4.11c.3. Exposure to and education in the medical direction of mass-gathering events.

4.11.d. Fellow Experiences: Fellows' experiences must include opportunities throughout the disaster cycle. (Core)

4.11.d.1. Fellows' education should include meaningful exposure to regional and state emergency medical services offices and other regulatory bodies that influence the delivery of patient care in prehospital settings. (Core)

4.11.d.2. Fellows' education should include longitudinal field operation experiences with emergency medical services personnel, including: (Core)

4.11.d.3 Experience in an emergency communications center and a public safety answering point, utilizing emergency medical dispatching guidelines. (Core)

4.11.d.4. Fellows should be involved in planning, participating, and evaluating disaster simulations and exercises.

4.11.d.5. Fellows may be given opportunities to do away rotations if there are unique experiences, related to disaster medicine education, not available at their Sponsoring institution.

4.11.d.6. Fellows should have opportunities to plan for and provide medical oversight for real or simulated mass gathering event(s).

4.11.d.7. Fellows should have an opportunity to perform mass casualty triage in a real or simulated environment.

4.13. Program Responsibilities

The program must demonstrate evidence of scholarly activities consistent with its mission(s) and aims. (Core)

4.13.a. The program, in partnership with its Sponsoring Institution, must allocate adequate resources to facilitate fellow and faculty involvement in scholarly activities. (Core)

4.13.b. The program must ensure support for fellow involvement in research, including research design, technical support, and statistical analysis. (Core)

4.14. Faculty Scholarly Activity

Among their scholarly activities, programs must demonstrate accomplishments in at least three of the following domains: (Core)

- Research in basic science, education, translational science, patient care, or population health;
- Peer-reviewed grants;
- Quality improvement and/or patient safety initiatives;
- Systematic reviews, meta-analyses, review articles, and chapters in medical textbooks, or case reports;
- Creation of curricula, evaluation tools, didactic educational activities; or electronic educational materials
- Contribution to professional committees, educational organizations, or editorial boards
- Innovations in education

4.14.b. The program must demonstrate dissemination of scholarly activity within and external to the program by the following methods:

4.14.b.1. Faculty participation in grand rounds, posters, workshops, and quality improvement presentations, podium presentations, grant leadership, non-peer-reviewed print/electronic resources, articles, or publications, book chapters, textbooks, webinars, service on professional committees,

or serving as a journal reviewer, journal editorial board member, or editor; (Outcome)

4.14.b.2. peer-reviewed publication. (Outcome)

4.15. Fellow Scholarly Activity

Curriculum must advance fellows' knowledge of the basic principles of research, scholarly application, and quality improvement. (Core)

4.15.a. At the time of graduation, each Fellow should demonstrate:

- active participation in a research project, or formulation and implementation of an original research project, including funded and non-funded basic science or clinical outcomes research, as well as active participation in an emergency department quality improvement project; or (Outcome)
- presentation of grand rounds, posters, workshops, quality improvement presentations, podium presentations, webinars, or (Core)
- grant leadership, non-peer-reviewed print/electronic resources, articles, or
- publications, book chapters, textbooks, service on professional committees, or
- serving as a journal reviewer, journal editorial board member, or editor; or (Outcome)
- peer-reviewed publications. (Outcome).

4.16. Independent Practice (Moonlighting)

4.16.a. Fellows must be provided with opportunities to maintain their primary specialty skills during their fellowship (Core)

Section 5: Evaluation

5.1. Fellow Evaluation: Feedback and Evaluation

Faculty members must directly observe, evaluate, and frequently provide feedback on fellow performance during each rotation or similar educational assignment. (Core)

5.1.a. Evaluation must be documented at the completion of the assignment. (Core)

5.1.a.1. Evaluations must be documented at least every three months. (Core)

5.1.b. The program must provide an objective performance evaluation based on the ACGME Competencies and the subspecialty-specific Milestones, and must: (Core)

5.1.b.1. use multiple evaluators (e.g., faculty members, peers, patients, self, and other professional staff members); and (Core)

5.1.b.2. provide that information to the Clinical Competency Committee (CCC) for its synthesis of progressive fellow performance and improvement toward unsupervised practice. (Core)

5.1.c. The program director or their designee, with input from the CCC, must meet with each fellow to review their documented semi-annual evaluation of performance, including progress along the subspecialty-specific Milestones. (Core)

5.1.d. The program director or their designee, with input from the CCC, must assist fellows in developing individualized learning plans to capitalize on their strengths and identify areas for growth. (Core)

5.1.e. The program director or their designee, with input from the CCC, must develop plans for fellows who fail to progress, in accordance with institutional policies and procedures. (Core)

5.1.f. There must be a summative evaluation of each fellow that includes their readiness to progress to the next year of the program, if applicable. (Core)

5.1.g. Evaluations of a fellow's performance must be accessible for the fellow's review. (Core)

5.2. Fellow Evaluation: Final Evaluation

The program director must provide a final evaluation for each fellow upon completion of the program. (Core)

5.2.a. The subspecialty-specific Milestones (and when applicable, the subspecialty-specific Case Logs) must be used as tools to ensure fellows are able to engage in autonomous practice upon completion of the program. (Core)

5.2.b. The final evaluation must become part of the fellow's permanent record maintained by the institution and must be accessible for review by the fellow in accordance with institutional policy. (Core)

5.2.c. The final evaluation must verify that the fellow has demonstrated the knowledge, skills, and behaviors necessary to enter autonomous practice. (Core)

5.2.d. The final evaluation must be shared with the fellow upon completion of the program. (Core)

5.3. Clinical Competency Committee

A Clinical Competency Committee (CCC) must be appointed by the program director. (Core)

5.3.a. At a minimum, the CCC must include three members, at least one of whom is a core faculty member. Members may also include faculty from other programs or

other health professionals who have extensive contact and experience with the program's fellows. (Core)

5.3.b. The CCC must review all fellow evaluations at least semi-annually. (Core)

5.3.c. The CCC must determine each fellow's progress toward achieving the subspecialty-specific Milestones. (Core)

5.3.d. The Clinical Competency Committee must meet prior to the fellows' semiannual evaluations and advise the program director regarding each fellow's progress. (Core)

5.4. Faculty Evaluation

The program must have a process to evaluate each faculty member's performance as it relates to the educational program at least annually. (Core)

5.4.a. This evaluation must include a review of the faculty member's clinical teaching abilities, engagement with the educational program, participation in faculty development, clinical performance, professionalism, and scholarly activities. (Core)

5.4.b. This evaluation must include written, confidential evaluations by the fellows. (Core)

5.4.c. Faculty members must receive feedback on their evaluations at least annually. (Core)

5.4.d. Results of the faculty educational evaluations should be incorporated into program-wide faculty development plans. (Core)

5.5. Program Evaluation and Improvement

The program director must appoint the Program Evaluation Committee (PEC) to conduct and document the Annual Program Evaluation (APE) as part of the program's continuous improvement process. (Core)

5.5.a. The PEC must be composed of at least two program faculty members, at least one of whom is a core faculty member, and ideally with at least one fellow participating.

5.5.b. PEC responsibilities must include review of the program's self-determined goals and progress toward meeting them. (Core)

5.5.c. Program Evaluation Committee responsibilities must include guiding ongoing program improvement, including the development of new goals, based upon outcomes (e.g., performance in large-scale exercises, policy changes enacted, system resiliency metrics). (Core)

5.5.d. Program Evaluation Committee responsibilities must include review of the current operating environment to identify strengths, challenges, opportunities, and threats as related to the program's mission and aims. (Core)

5.5.e. The Program Evaluation Committee should consider the outcomes from prior Annual Program Evaluation(s), aggregate fellow and faculty written evaluations of the program, and other relevant data in its assessment of the program. (Core)

5.5.f. The Program Evaluation Committee must evaluate the program's mission and aims, strengths, areas for improvement, and threats. (Core)

5.5.g. The Annual Program Evaluation, including the action plan, must be distributed to and discussed with the fellows and the members of the teaching faculty, and be submitted to the DIO. (Core)

5.5.h. The program must participate in a Self-Study and submit it to the DIO.

5.6. Board Certification

One goal of ACGME-accredited education is to educate physicians who seek and achieve board certification.

5.6.a. For subspecialties in which the ABMS member board and/or AOA certifying board offer(s) a biennial written exam, in the preceding six years, the program's aggregate pass rate of those taking the examination for the first time must be higher than the bottom fifth percentile of programs in that subspecialty. (Outcome)

5.6.b. For each of the exams referenced in 5.6. – 5.6.c., any program whose graduates over the time period specified in the requirement have achieved an 80 percent pass rate will have met this requirement, no matter the percentile rank of the program for the pass rate in that subspecialty. (Outcome)

5.6.c. Programs must report, in ADS, their board certification status annually for the cohort of board-eligible fellows that graduated seven years earlier. (Core)

Section 6: The Learning and Working Environment

The Learning and Working Environment Fellowship education must occur in the context of a learning and working environment that emphasizes excellence in the safety and quality of care rendered to patients, excellence in professionalism, and commitment to the well-being of all members of the health care team.

Culture of Safety

6.1. The program, its faculty, and fellows must actively participate in patient safety systems and contribute to a culture of safety.

6.2. Fellows, faculty members, and other clinical staff members must know their responsibilities in reporting patient safety events and unsafe conditions at the clinical site, including how to report such events.

6.3. Fellows must participate as team members in real and/or simulated interprofessional clinical patient safety and quality improvement activities that include analysis, post incident debriefing, or “hotwash” as well as formulation and implementation of lessons learned.

Quality Metrics

6.4. Fellows and faculty members must receive data on quality metrics and benchmarks in their specialty related to their patient populations.

Supervision and Accountability

6.5. Fellows and faculty members must inform each patient of their respective roles in that patient’s care when providing direct patient care. This information must be available to fellows, faculty members, other members of the health care team, and patients. (Core)

6.6. The program must demonstrate that the appropriate level of supervision in place for all fellows is based on each fellow’s level of training and ability, as well as patient complexity and acuity. Supervision may be exercised through a variety of methods, as appropriate to the situation. (Core)

Levels of Supervision

To promote appropriate fellow supervision while providing for graded authority and responsibility, the program must use the following supervision classifications.

6.7. Direct Supervision

The supervising physician is physically present with the fellow during the key portions of the patient interaction.

The supervising physician and/or patient is not physically present with the fellow, and the supervising physician is concurrently monitoring the patient care through appropriate telecommunication technology.

6.8 Indirect Supervision

The supervising physician is not providing physical or concurrent visual or audio supervision but is immediately available to the fellow for guidance and is available to provide appropriate direct supervision.

Oversight

The supervising physician is available to provide a review of procedures/encounters with feedback provided after care is delivered.

6.8. The program must define when the physical presence of a supervising physician is required. (Core)

6.9. The privilege of progressive authority and responsibility, conditional independence, and a supervisory role in patient care delegated to each fellow must be assigned by the program director and faculty members. (Core)

6.9.a. The program director must evaluate each fellow's abilities based on specific criteria, guided by the Milestones. (Core)

6.9.b. Faculty members functioning as supervising physicians must delegate portions of care to fellows based on the needs of the patient and the skills of each fellow. (Core)

6.9.c. Fellows should serve in a supervisory role to junior fellows and residents in recognition of their progress toward independence, based on the needs of each patient and the skills of the individual resident or fellow. (Detail)

6.10. Programs must set guidelines for circumstances and events in which fellows must communicate with the supervising faculty member(s). (Core)

6.10.a. Each fellow must know the limits of their scope of authority and the circumstances under which the fellow is permitted to act with conditional independence. (Outcome)

6.11. Faculty supervision assignments must be of sufficient duration to assess the knowledge and skills of each fellow and to delegate to the fellow the appropriate level of patient care authority and responsibility. (Core)

6.12. Professionalism

Programs, in partnership with their Sponsoring Institutions, must educate fellows and faculty members concerning the professional and ethical responsibilities of physicians, including but not limited to their obligation to be appropriately rested and fit to provide the care required by their patients. (Core)

- 6.12.a.** The learning objectives of the program must be accomplished without excessive reliance on fellows to fulfill non-physician obligations. (Core)
- 6.12.b.** The program's learning objectives must ensure manageable patient care responsibilities. (Core)
- 6.12.c.** The program's learning objectives must include efforts to enhance the meaning each fellow finds in the experience of being a physician, including protecting time with patients, providing administrative support, promoting progressive independence and flexibility, and enhancing professional relationships. (Core)
- 6.12.d.** The program director, in partnership with the Sponsoring Institution, must provide a culture of professionalism that supports patient safety and personal responsibility. (Core)
- 6.12.e.** Fellows and faculty members must demonstrate an understanding of their personal role in the safety and welfare of patients entrusted to their care, including the ability to report unsafe conditions and safety events. (Core)
- 6.12.f.** Programs, in partnership with their Sponsoring Institutions, must provide a professional, respectful, and civil environment that is psychologically safe and that is free from discrimination, sexual and other forms of harassment, mistreatment, abuse, or coercion of students, fellows, faculty, and staff. (Core)
- 6.12.g.** Programs, in partnership with their Sponsoring Institutions, should have a process for education of fellows and faculty regarding unprofessional behavior and a confidential process for reporting, investigating, and addressing such concerns. (Core)

Well-Being

Psychological, emotional, and physical well-being are critical in the development of the competent, caring, and resilient physician and require proactive attention to life inside and outside of medicine. Well-being requires that physicians retain the joy in medicine while managing their own real-life stresses. Self-care and responsibility to support other members of the health care team are important components of professionalism; they are also skills that must be modeled, learned, and nurtured alongside other aspects of fellowship training.

Fellows and faculty members are at risk for burnout and depression. Programs, in partnership with their Sponsoring Institutions, have the same responsibility to address well-being as other aspects of resident competence. Physicians and all members of the health care team share responsibility for each other's well-being. A positive culture in a clinical learning environment models constructive behaviors and prepares fellows with the skills and attitudes needed to thrive throughout their careers.

6.13. The responsibility of the program, in partnership with the Sponsoring Institution, must include:

6.13.a. Attention to scheduling, work intensity, and work compression that impacts fellow well-being; (Core)

6.13.b. Evaluating workplace safety data and addressing the safety of fellows and faculty members; (Core)

6.13.c. Policies and programs that encourage optimal fellow and faculty member wellbeing; and (Core)

6.13.c.1. Fellows must be given the opportunity to attend medical, mental health, and dental care appointments, including those scheduled during their working hours. (Core)

6.13.d. Education of fellows and faculty members in:

6.13.d.1. identification of the symptoms of burnout, depression, and substance use disorders, suicidal ideation, or potential for violence, including means to assist those who experience these conditions; (Core)

6.13.d.2. recognition of these symptoms in themselves and how to seek appropriate care; and (Core)

6.13.d.3. access to appropriate tools for self-screening. (Core)

6.13.e. Providing access to confidential, affordable mental health assessment, counseling, and treatment, including access to urgent and emergent care 24 hours a day, seven days a week. (Core)

6.14. There are circumstances in which fellows may be unable to attend work, including but not limited to fatigue, illness, family emergencies, and medical, parental, or caregiver leave. Each program must allow an appropriate length of absence for fellows unable to perform their patient care responsibilities. (Core)

6.14.a. The program must have policies and procedures in place to ensure coverage of patient care and ensure continuity of patient care. (Core)

6.14.b. These policies must be implemented without fear of negative consequences for the fellow who is or was unable to provide the clinical work. (Core)

6.15. Fatigue Mitigation

Programs must educate all fellows and faculty members on recognizing the signs of fatigue and sleep deprivation, managing alertness, and fatigue mitigation processes. (Detail)

6.16. The program, in partnership with its Sponsoring Institution, must ensure adequate sleep facilities and safe transportation options for fellows who may be too fatigued to return home safely. (Core)

6.16.a. It is acknowledged that during a declared disaster or active disaster response, atypical facilities and transportation use may be necessary.

6.17. Clinical Responsibilities

The clinical responsibilities for each fellow must be based on PGY level, patient safety, fellow ability, the severity and complexity of patient illness/condition, and available support services. (Core)

6.18. Teamwork

Fellows must care for patients in an environment that maximizes communication and promotes safe, interprofessional, team-based care in the subspecialty and larger health system. (Core)

6.18.a. Contributors to effective interprofessional teams may include consulting physicians, paramedics, , EMS clinicians, nurses, firefighters, police officers, and other professional and paraprofessional personnel involved in the assessment and treatment of patients. (Detail)

6.19. Transitions of Care

Programs must design clinical assignments to optimize transitions in patient care, including their safety, frequency, and structure. (Core)

6.19.a. Programs, in partnership with their Sponsoring Institutions, must ensure and monitor effective, structured hand-off processes to facilitate both continuity of care and patient safety. (Core)

6.19.b. Programs must ensure that fellows are competent in communicating with team members during transitions of patient care. (Outcome)

Clinical Experience and Education

Programs, in partnership with their Sponsoring Institutions, must design an effective program structure that provides fellows with educational and clinical experience opportunities, as well as reasonable opportunities for rest and personal activities.

6.20. Maximum Hours of Clinical and Educational Work per Week

Clinical and educational work hours must be limited to no more than 80 hours per week, averaged over a four-week period, including all in-house clinical and educational activities, clinical work done from home, and all moonlighting. (Core)

6.21. Mandatory Time Free of Clinical Work and Education

6.21.a. Fellows must have at least 14 hours free of clinical work and education after 24 hours of in-house call. (Core)

6.21.b. Fellows must be scheduled for a minimum of one day in seven free of clinical work and required education (when averaged over four weeks). At-home call cannot be assigned on these free days. (Core)

6.22. Maximum Clinical Work and Education Period Length

Clinical and educational work periods for fellows must not exceed 24 hours of continuous scheduled clinical assignments. (Core)

6.22.a. Up to four hours of additional time may be used for activities related to patient safety, such as providing effective transitions of care and/or fellow education. Additional patient care responsibilities must not be assigned to a fellow during this time. (Core)

6.23. Clinical and Educational Work Hour Exceptions

In rare circumstances, such as declared disasters or mass-casualty events, a fellow, on their own initiative, may elect to remain or return to the clinical site in the following circumstances: to continue to provide care to severely ill or unstable patients; to give humanistic attention to the needs of patients or patient's families; or to attend unique educational events. (Detail)

6.23.a. These additional hours of care or education must be counted toward the 80-hour weekly limit. (Detail)

6.24. A Review Committee may grant rotation-specific exceptions for up to 10 percent, or a maximum of 88 clinical and educational work hours, to individual programs based on a sound educational rationale.

The Review Committee for Emergency Medicine will not consider requests for exceptions to the 80-hour limit to the fellows' work week.

6.25. Moonlighting

Moonlighting must not interfere with the ability of the fellow to achieve the goals and objectives of the educational program and must not interfere with the fellow's fitness for work nor compromise patient safety. (Core)

6.25.a. Time spent by fellows in internal and external moonlighting (as defined in the ACGME Glossary of Terms) must be counted toward the 80-hour maximum weekly limit. (Core)

6.27. Maximum In-House On-Call Frequency

Fellows must be scheduled for in-house call no more frequently than every third night (when averaged over a four-week period). (Core)

6.28. At-Home Call

Time spent on patient care activities by fellows on at-home call must count toward the 80-hour maximum weekly limit. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one day in seven free of clinical work and education, when averaged over four weeks. (Core)

6.28.a. At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each fellow. (Core)