

**Request for Applications to the
Society for Academic Emergency Medicine
Fellowship Approval Program for Disaster Medicine (2 Year)**

I. Description of General Program:

The Society for Academic Emergency Medicine recognizes there are many valuable non- ACGME-approved postgraduate training opportunities for EM residency graduates. In an effort to promote standardization of training within a sub-specialty area, guidelines have been developed for any eligible fellowship program to earn the endorsement of SAEM as an approved fellowship. SAEM has developed guidelines for training programs that address curricular elements, faculty support recommendations, and career development opportunities.

Approval of a fellowship is contingent upon a review of the institutional environment, success of prior graduates and current members of the faculty fellowship team, and proposed curriculum for future fellows. All approved institutions must have an ACGME-approved emergency medicine residency and support for a disaster medicine program in place. They must demonstrate strong collaboration with clinicians, educators, and researchers as well as with other clinical services that supervise relevant rotations. This support may frequently be provided by collaboration with existing disaster related programs in the institution or located within the community. If such a program is not available for collaboration at an applying institution, careful attention will be given by reviewers to ensure adequate support is available including the opportunity for mentorship by high-level leaders from other disaster entities, including the county, state, federal, or independent volunteer agencies. Approved programs will demonstrate a requirement for pursuit of master's level training such as an MPH or equivalent degree.

The program director will be either a graduate from an existing disaster medicine fellowship or have at least 5 years experience in the field of disaster medicine. Such experience will include but is not limited to service on DMATs or other medical teams, membership in regional or national committees or organizations involved in disaster medicine, academic publications or teaching activities addressing disaster medicine issues, and roles in government entities that deal with disaster response. The disaster medicine fellowship director will have appropriate authority and support to conduct the program. Applicants to the fellowship program must have graduated from an emergency medicine residency and be eligible for certification by either the American Board of Emergency Medicine (ABEM) or American Osteopathic Board of Emergency Medicine (AOBEM). Applicants with different background or training will require specific arrangements with the fellowship program and will be evaluated on a case by case basis.

A site visit and/or interview may be requested at the discretion of the SAEM Fellowship Approval Committee members. Initial approval of a fellowship is for a period of three academic years (July 1 – June 30). At the end of the initial period, programs with

demonstrated success can apply for renewal of approval every five years. Approved programs must communicate to the committee annually any changes in disaster medicine fellowship personnel. In the event of the departure or replacement of the program director, a secondary review will be required. Approved programs will agree to abide by a uniform applicant notification of acceptance date, similar in concept to the resident matching program.

II. Description of Process:

- A. Submit the application and all associated documents as a single .pdf file to SAEM prior to the application deadline (or next business day if the deadline falls on a weekend or holiday). Initial application and renewal deadlines are April 1 and September 1 of each year. All applications, registration forms, and progress reports should be submitted electronically to grants@saem.org.
- B. The application fee is \$400 for first-time applicants and \$500 for renewals. Applications will not enter the review process until the fee is received. The fee must be received on or before the submission deadline. No exceptions will be made. The full application will be reviewed by the SAEM Fellowship Approval Committee (this process requires approximately 2 months).
- C. The initial approval period is for 3 years. Subsequent renewal applications are approved for 5 years.
- D. After approval, the fellowship will receive the designation "SAEM Approved" on the SAEM Fellowship Directory list.

III. Essential components of the programs

- A. Two-year disaster medicine fellowships should provide applicants with a comprehensive educational experience. Depending on the career interests of the participants, it should successfully address academic and research skills as well as provide strategic, tactical, operational and clinical training in disaster medicine. Upon completion of this fellowship, graduates will be skilled in all aspects of the disaster cycle and have the ability to assume a leadership role on the local, regional, federal, or international level in the area of Disaster Medicine. Depending on the program's emphasis, the fellow may also attain the knowledge, experience and research skills needed to support a successful academic career. The program should prepare fellows to be active in operations, research and academics, and in the design and implementation of clinical programs while exposing them to both domestic and international opportunities.

To achieve this end, disaster medicine fellowship programs that receive approval by SAEM will meet minimum training criteria. These are grouped into three categories. Programs will develop a minimum curriculum that supports a standardized knowledge base. They will supervise fellows in some type of scholarly activity, depending on the scope of the program. At a minimum, this

will include an advanced degree such as an MPH, and a research project. Lastly, programs will develop a series of clinical and administrative activities in which fellows will participate. A more detailed description of these benchmarks follow.

B. Curriculum

Programs should teach the following content to varying levels of depth depending on the fellow's primary area of interest and focus. Content should be delivered via a combination of lectures, didactics, workshops, hands on activity, online course work and/or observation experiences. Fellows are expected to master this content over the course of the 2-year training program, leaving sufficient time for pursuit of a master's degree and a publishable research project. Other options to meet curricular requirements include use of established disaster medicine textbooks and course material from accredited programs such as the European Master in Disaster Medicine.

1. Introduction to Disaster Medicine
 - a. The disaster cycle
 - b. Evolution of emergency management
 - c. Local disaster response
 - d. National disaster response

2. Public Health and Disaster Medicine
 - a. Role of public health agencies in disaster medicine
 - b. National Response Framework
 - c. Public health surveillance
 - d. Needs assessments
 - e. Sphere Standards/water, sanitation and hygiene (WASH)
 - f. Climate change and disaster medicine
 - g. Vaccine and pharmaceutical distribution

3. Hospital Disaster Preparedness
 - a. Hazard Vulnerability Analysis
 - b. Hospital Incident Command Systems
 - c. Emergency operations plans
 - d. Command center operations
 - e. Community integration
 - f. Information management/communications
 - g. Surge capacity
 - h. Planning for MCIs
 - i. Drill design
 - j. Scarce resource allocation protocols

4. Disaster Preparedness, Mitigation, Response, Resiliency

- a. Personal preparedness
 - b. Organizational preparedness
 - c. Hospital preparedness
 - d. Community preparedness
 - e. National preparedness
 - f. Rehabilitation and reconstruction
 - g. Organization-based disaster resiliency
 - h. Community-based disaster resiliency
5. Incident Command Systems
- a. ICS basics
 - b. Command and control
 - c. International systems
6. Operations and Logistics
- a. Field operations and logistics
 - b. Disaster operations
 - c. Volunteer management
 - d. Operational continuity
 - e. Care of animals
 - f. Nursing and disasters
7. Psychological Aspects of Disaster Medicine
- a. Psychological effects of disaster medicine
 - b. Psychological first aid
8. Ethical Issues in Disaster Medicine
- a. Liability in disaster response
 - b. Ethics of disaster medicine
 - c. Disaster finance
 - d. Vulnerable populations
9. EMS and Disaster Medicine
- a. EMS disaster operations
 - b. Search and rescue
 - c. Tactical EMS
 - d. Active shooter
 - e. Fireground Safety
 - f. Vehicle extrication
10. Safety & Security
- a. Scene safety
 - b. Security in the field

11. Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE)
 - a. Chemical agents
 - b. Biological agents
 - c. Radiation/Nuclear events
 - d. Pandemics/emerging infectious diseases
 - e. Hazardous materials (HAZMAT)
 - f. Personal protective equipment (PPE)
 - g. Blast/Crush injuries
 - h. Burns
 - i. Quarantine
 - j. Decontamination
12. Disaster Medicine in the Field
 - a. Disaster triage
 - b. Disaster Medical Assistance Teams (DMAT)
 - c. Basics in the field
 - d. Alternate care sites
 - e. Mass fatalities and mortuary care
13. Environmental Disasters
 - a. Hurricane/Typhoon
 - b. Earthquakes
 - c. Volcanos
 - d. Tornadoes
 - e. Tsunami
 - f. Flooding
 - g. Famine
 - h. Drought
 - i. Winter storms
 - j. Wild fires
14. Technological Disasters
 - a. Structural collapse
 - b. Transportation disasters
15. International Disaster Response
 - a. UN cluster system
 - b. Displaced populations
 - c. Complex Public Health Emergencies
 - d. Emergency Medical Teams & the World Health Organization
 - e. International Search and Rescue Advisory Group (INSARAG)
 - f. Non-Governmental Organizations
16. Mass Gathering Medicine

- a. Mass Gatherings
 - b. Civil Unrest
17. Communications
- a. Crisis and emergency risk communication
 - b. Communication systems and Informatics
 - c. Social media and disasters
18. Technology and Disaster Medicine
- a. Crisis Mapping
 - b. Telemedicine
 - c. Disaster Modeling and Simulation
 - d. Patient Tracking
 - e. Ultrasound
 - f. Informatics
19. Disaster Medicine Research
- a. Journal Club
 - b. Research basics

C. Research Requirement

It is expected that all Fellows will receive formal education regarding the conduct and publication of research in disaster medicine. Upon graduation, fellows should be able to critically review academic publications and identify strengths and weaknesses of existing and new major publications in the field. Graduates should be able to list the major research methods commonly used in disaster medicine (surveys, case reports, cross sectional investigations, case control studies, cohort trials, simulations, models, and prospective trials) and be able to identify the advantages and disadvantages of each method with respect to disaster medicine. Graduates should also be able to identify the major academic journals and name other credible sources of peer-reviewed knowledge in the field. Graduates should also be expected to be describe the logistical, ethical, financial, and political challenges of conducting research in disaster settings. Graduates should also be familiar with the common basic statistics analytical techniques used in disaster research.

It is expected that all graduates of two-year fellowships in disaster medicine will complete a scholarly project that is focused on a single topic within disaster medicine. The effort should produce a manuscript that is of sufficient quality to result in publication in the peer-reviewed literature, as judged by the fellowship director. The project need not necessarily be accepted for a publication, but the work must meet the same general standards that are required of any submission to a major journal in disaster medicine. The project should clearly demonstrate that the fellow has completed a thorough assessment of the literature and other

knowledge available about their topic, has identified a key question about this topic, and has attempted to provide new data or analysis on the topic. The project should be of high quality, and reflect a minimum of 200 hours work on the topic. If the fellow is pursuing an MPH, the thesis written in support of this degree can substitute for the scholarly project. For those pursuing other master's degrees where a thesis is not required, a fellow will need to complete a scholarly project in addition to obtaining the degree.

D. Administrative/Clinical Requirements

As part of the fellowship requirements, the disaster medicine fellow will provide participation and support for the following activities and programs.

1. The fellow will join or participate in at least one disaster related committee at the following levels if available: the hospital, the community, the state, and national organized disaster/emergency medicine level (e.g. SAEM, ACEP, AAEM, etc). Options for participation include:
 - a. Emergency Department Disaster/Emergency Management Committee participation as active core member, attend meetings, assist with projects.
 - b. Hospital Emergency Management Committee (or Environment of Care if disaster preparedness resides there)-attends meetings
 - c. Regional Healthcare Committee (HCC)-attends representative meetings to understand role of HCC and regional planning for year 1. During year 2, actively represents hospital in HCC meetings. If hospital subcommittee exists, attends the hospital meetings.
 - d. Attends State Emergency Management Conference or similar alternative such as State Health Department Conference or attending recurring State planning meetings.
 - e. Attends one emergency medicine national meeting (e.g. SAEM, ACEP, AAEM, NAEMSP, Special Operations Medical Association, etc) attending disaster committee meeting annually.

2. The fellow will support and participate in Emergency Department activities such as journal clubs, disaster drills, and grand rounds. This requirement can be fulfilled by the following:
 - a. Participates in Emergency Departmental drills and exercises
 - b. Participates in ED exercise design meetings.
 - c. Year 2 is lead designer and controller on a significant ED exercise
 - d. Participates in hospital decontamination training
 - e. Attend 50% of department journal clubs for the year and 100% of disaster medicine journal clubs
 - f. Attend 20% of grand rounds during the year
 - g. Attendance at faculty meeting and department conferences per department requirements

3. The fellow will provide the following educational support:
 - a. Develop and be prepared to deliver four formal disaster medicine related lectures to the residency class (or equivalent group) over a two year time span.
 - b. Provide medical supervision and teaching to residents and medical students as required by department policy.
4. The disaster medicine fellow will engage in some type of meaningful activity related to disaster response groups, which may include but are not limited to the National Disaster Medical System (DMATs) or international response organizations. Such activity may include:
 - a. Researching and writing a brief summary of mission types and physician deployment criteria for several disaster response groups.
 - b. Proceeds to join disaster response group of choice or contacts regional disaster response group as a partner and develops a white paper or plan for integrating DMAT or EMAC resources into home organization.
 - c. Deploying to a disaster as part of a response team
5. Clinical activity
 - a. The disaster medicine fellow must not provide more than 18 hours per week of clinical practice unrelated to disaster medicine averaged over 4 weeks.
 - b. The fellow will meet all medical staff requirements, including maintaining whatever certification is required of all emergency medicine faculty.
6. Fellowship Evaluation
 - a. In order to provide positive constructive guidance, the fellowship director will meet with the fellow at a minimum of every 6 months to give oral and written feedback as to the individual's progress and performance. The evaluation meetings can be held more frequently at the discretion of the director.
 - b. In order to provide positive constructive guidance, the fellow will meet with the program director at a minimum of every 6 months to give oral and written feedback regarding the strengths and weaknesses of the program and the program director, and suggest options for improvement. The evaluation meetings can be held more frequently at the discretion of the director.