Emergency Medicine Foundation

Emergency Clinical Work Intensity Grant

Request for Proposal

Please read these instructions carefully. Applications that do not follow these instructions with regards to type size, length, format, and supporting documentation will be summarily rejected. No extension of the deadline will be granted.

Before submitting your application, please be sure that the following items have been addressed:

- Information page is included as the first page of the application packet and is fully completed (sample attached).
- Type size is 12 pt. font.
- Evidence of IRB approval, or at least evidence of submission to IRB, from each institution, is included in application packet (for multi-centered studies, approval from or evidence of submission to IRB/AUC for all sites is required)
- Clearly stated research hypothesis
- Statement of Conditions is signed by **Principal Investigator** and **Institutional Official** and is included in application packet (see below).
- Letter of support from Emergency Medicine Chair is included in application packet
- Letter of support from each co-investigator is included in application packet
- Other grant support for all investigators is included in application packet
- Submit your application as one PDF document to Cynthia Singh, MS, Director of Grant Development at csingh@acep.org by May 4, 2018 at 5:00 pm Central Time. Late applications will not be considered.

EMERGENCY MEDICINE FOUNDATION

Emergency Clinical Work Intensity Grant

Application Deadline	May 4, 2018 at 5:00 pm Central Time
Notification of Award	May 2018
Funding Period	May 2018 - December 31, 2018
Funding Amount	$50,000
Application Submission	Submit application as one PDF document to Cynthia Singh at csingh@acep.org

RESEARCH TOPIC

The EMF Emergency Clinical Work Intensity Grant is intended to achieve greater understanding of the change in the intensity of work, as described by the Medicare RBRVS system (i.e. relative value units), performed by emergency physicians over the past 10-15 years. Specifically, the goals of this grant are to support investigation of such issues as community disease burden, national payment policy, information technology, available outpatient and hospital resources, patient expectations, clinical or co-morbid conditions, and the impact on the intensity work done by emergency physicians.

A potential example of the studies could include an evaluation of clinical conditions or patient circumstances that previously resulted in hospitalization and are now routinely discharged home. To be considered responsive, the corresponding analysis should focus on the change in type, duration, and/or intensity of the clinical work of emergency physicians and include an assessment of clinical impact, such as adverse outcomes of discharge or adverse hospital events avoided and financial impact including lost hospital revenue, decreased overall total cost, increased advanced imaging use, increased decision-making complexity, increased specialist consultations, etc.

Other examples might include the cognitive and time impact of larger amounts of data from health system Electronic Health Records (EHRs) and regional Health Information Exchanges (HIEs) including Prescription Drug Monitoring Programs (PDMP); the widespread use of scribes to adequately capture the detail of larger data review; change in work to overcome the otherwise lost productivity created by longer, more intense patient evaluation and intervention; and the impact of unmet needs in behavioral health and substance abuse.

Discussions of work intensity could also include analysis of the time required to complete tasks, duration of patient evaluations and interventions, clinician physical and cognitive effort, and psychologic stress including stress associated with liability risk amongst other measures.

Directed study of a regional group may be suitable if properly structured, but preference will be given to applications that propose robust analyses of large segments of emergency department visits using large, diverse data sources that account for regional and institutional variability, and specifically those including a description of Medicare beneficiaries. Work intensity measurement, reporting and analysis for any proposed study should also focus on quantitative as opposed to qualitative outcomes. Analysis of existing databases, synthesis of studies, mathematical modeling, or a combination of data sources with valid modeling could be employed.

ELIGIBILITY

This grant opportunity should be considered by anyone experienced in emergency care and health policy. The principal investigator will make all arrangements for conduct of the proposed research projects and assumes responsibility for conducting the research projects and supervising the work of all associate investigators.

INSTITUTIONAL SUPPORT

The applicant is required to demonstrate that the project will be successfully completed at their institution. The applicant must demonstrate that access to an existing clean database(s) will be available for study during the funding period. **Research must be reviewed by the institutional review board (IRB), and a copy of the approval or pending review sent with this application. IRB approval or IRB determination that the research is either exempt or not human subjects research must be documented prior to dispensation of EMF funds.**

EVALUATION OF APPLICATIONS

Each application will be reviewed by members of ACEP's Scientific Review Subcommittee. Each application will be judged primarily on: (1) the significance of the project to emergency medicine, (2) the soundness of the research methodology, (3) the likelihood the project will be completed, and (4) innovation. Priority will be given to investigators with existing databases and prior experience in the field. The final funding decision will be made by the Emergency Medicine Foundation Board of Trustees and all decisions are final.

TERMS OF THE AWARD

The EMF grant funds will be disbursed in two payments. Disbursement of payments will be contingent upon satisfactory progress reports.

Limitations on Awards

Funds may be used for materials and supplies and to provide salary support. Capital equipment expenditures (costing more than $5,000 and a life of over one year) must be justified in the budget. Payments will be made to the principal investigator's institution that will be responsible for administering the funds. The Emergency Medicine Foundation will not be responsible for institutional overhead, cost for publications, travel, renovations, or secretarial support. Detailed audited financial reports may be required. The EMF is not fiscally responsible for funds necessary for the project's completion.

Change of Status of Principal Investigator

If the principal investigator changes affiliations or ceases research in the field for which the award was made, the award will terminate, and the remaining balance will be returned to the Emergency Medicine Foundation.

Liability of the Emergency Medicine Foundation

The EMF assumes no financial liability if patient care responsibilities of any kind are undertaken by the program faculty or investigator. The principal investigator and his or her institution acknowledge that the EMF is not legally liable for the conduct of the institution, the principal investigator, the program faculty, or any associate investigators.

Patent Policy

The principal investigator and institution acknowledge that, though unlikely, if a patentable invention or discovery is conceived, or conceived and reduced to practice by EMF-supported personnel during the award year, the EMF must be apprised of the invention and the institution's plans for protecting such invention under existing institutional patent policy. The EMF will defer to institutional policies where they are in compliance with those of the Federal government. The EMF reserves the right where the organization has no patent policy, or policies not in compliance with those of the federal government, to claim rights and interests in the invention or discovery.

SUPPORT FACILITIES

The applicant must submit letters of support if the proposed project uses facilities not routinely available to or directly under the supervision of the sponsoring program.

PUBLICATIONS

All discoveries resulting from work supported in part by the Foundation should be made available to the public and scientific community through scientific and/or public policy channels such as national meetings and peer-reviewed publications. Publications will acknowledge the support of the Emergency Medicine Foundation. Two reprints of each publication should be forwarded to the Emergency Medicine Foundation.

PROGRESS REPORTS AND MONEY MANAGEMENT

The principal investigator is required to submit progress reports and a final progress report within thirty days of the conclusion of the award year. Additional reports may be required. Failure to provide such reports will delay transmission of funds. Furthermore, failure to provide interim and final reports to the Foundation may negatively impact your institution's ability to apply for future EMF awards. EMF will maintain the copyright of all such reports. Progress reports must include an accounting report using Generally Accepted Accounting Procedures showing the distribution of funds with a signature from an institutional official (e.g., accountant, grants manager, administrator from the Office of Sponsored Research). The EMF reserves the right to withhold release of interim funds if >25% of the previous cycle remains unspent. The EMF allows up to 25% of funds to be carried over from one cycle to the next.

SURVEYS

The principal investigator and the institution will be surveyed periodically following completion of the award regarding career paths, subsequent grants/contracts obtained, and publications. The principal investigator and the institution will be expected to respond to these surveys as the Foundation will rely on such information to support continuation of the award program.

RESEARCH FORUM

Awardees are required to present their work at the American College of Emergency Physicians Scientific Assembly/Research Forum immediately following the completion of the award year as a poster presentation. Funds cannot be requested to cover the travel cost to attend the Research Forum.

GRANTEE WORKSHOP

Grant recipients will be expected to attend a grantee workshop. The workshop is designed to bring together EMF grant recipients to present their progress and discuss any problems they may be facing. Senior researchers and faculty will be available to help solve problems that are potentially bogging down research projects, manage staff, and balance life. Travel expenses will be reimbursed by the Emergency Medicine Foundation.

CONTACT INFORMATION

Please address questions to Cynthia Singh, MS, Director of Grant Development at csingh@acep.org.

APPLICATION INSTRUCTIONS

Historically, getting the signatures on the application has been the main delay in meeting the grant deadline due to sick leave, vacations, business travel, etc. We suggest that you start getting the signatures as soon as possible so you do not miss the grant deadline. Once the deadline passes, we cannot accept the application.

Use English only and avoid jargon and unusual abbreviations. For terms not universally known, spell out the term the first time it is used with the appropriate abbreviation in parentheses; the abbreviation may be used thereafter. Type the application, single-spaced, and stay within the margin limitations indicated on the forms and continuation pages. The type must be clear and readily legible, use 12 pt. size font.

Do **not** submit an incomplete application. **An application will be considered incomplete if it is illegible, if it fails to follow instructions, or if the material presented is insufficient to permit an adequate review.** Unless specifically required by these instructions (e.g. human subjects certification, vertebrate animals verification) do **not** send supplementary material.

The application consists of the following sections:

1. INFORMATION PAGE

Name the **one** person responsible to the applicant organization for the scientific and technical direction of the project. Choose a title that is descriptive and specifically appropriate, rather than general. List the Mentor and any associate investigators. (See sample below)

2. ABSTRACT

Brief summary of research proposal. Include coursework (or degree) to be completed and rationale, research hypothesis, specific aims, and significance.

3. TABLE OF CONTENTS

4. RESEARCH PROPOSAL (limit 12 pages)

Please use the following subheadings:

Specific Aims

- State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved.
- List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.
- Specific Aims are limited to one page.

Significance

- Explain the impact of the condition on the health of individuals and populations
- Explain how the potential for the study to improve healthcare and outcomes
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

Innovation

- Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions.

Approach

- Describe overall strategy, methodology, and analyses to be used to accomplish specific aims of project.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work.
- Preliminary Studies. Include information on Preliminary Studies. Discuss the PD/PI's preliminary studies, data, and or experience pertinent to this application. Preliminary data can be an essential part of a research grant application and help to establish the likelihood of success of the proposed project.
- Specify databases or available data resources to be used.

5. PERSONAL STATEMENT (limit 1 page)

The applicant should compose and submit a personal statement that addresses:

a. the applicant's interest in the topic and this project
b. the applicant's perception of his/her role in the project
c. any additional pertinent experience or interests the applicant wishes the committee to consider

6. ROLE OF PARTICIPANTS (limit 1 page)

List the investigator and consultant. Include a brief description of how and to what extent each will be involved in the proposed project.

7. BIOGRAPHICAL SKETCHES

Use the NIH Biographical Sketch Format Page available on the internet at https://grants.nih.gov/grants/forms/biosketch.htm

Information is requested for the applicant, mentor and any associate investigators who will be involved with the projects.

8. RESOURCES AND ENVIRONMENT

Describe the research facilities (laboratory space, clinical population, etc.) available for fellowship training. If computer access or statistical support is available, it should be described in this section.

9. BUDGET

Use the NIH Form Detailed Budget for Initial Budget Period available on the internet at www.grants.nih.gov/grants/funding/phs398/phs398.html#

Indicate how the money will be spent. Justify all major expenditures. Use current NIH salary caps. EMF does not allow institutional overhead (indirect costs).

10. OTHER SUPPORT

List all current and pending intramural and extramural research funding for the applicant, Mentor and co-investigators. For each item indicate the grant identification number, grant type, PI, funding source, annual direct costs, funding period, percent effort, grant title, and brief description of project. For all items indicate whether there is any scientific or budgetary overlap with the current proposal.

11. ETHICS

Human subjects. For all research involving human subjects, a part of the peer review process will

include careful consideration of protections from research risks, as well as the appropriate inclusion of women, minorities, and children. The EMF Scientific Review Committee (SRC) will assess the adequacy of safeguards of the rights and welfare of research participants, and the appropriate inclusion of women, minorities, and children, based on the information in the application. This evaluation will be factored into the overall score. The information on the protection of human subjects that you are required to provide in this section is identical to information that you will be required to provide for IRB at your own institution and are required by most Federal agencies. This section must address the following items. These can be copied and pasted directly into your application.

The applicant should include specific measures on how protected health information (as defined by the Human Health Services) will be handled in accordance with the Privacy Rule of the Health Insurance Portability Accountability Act (HIPAA)."

1. RISKS TO THE SUBJECTS

a. Human Subjects Involvement and Characteristics

Describe the proposed involvement of human subjects in the work outlined in the Research Design and Methods section. Describe the characteristics of the subject population, including their anticipated number, age range, and health status. Identify the criteria for inclusion or exclusion of any subpopulation. Explain the rationale for the involvement of special classes of subjects, such as fetuses, neonates, pregnant women, children, prisoners, institutionalized individuals, or others who may be considered vulnerable populations. Note that 'prisoners' includes all subjects involuntarily incarcerated (for example, in detention centers) as well as subjects who become incarcerated after the study begins. List any collaborating sites where human subjects research will be performed and describe the role of those sites in performing the proposed research.

b. Sources of Materials

Describe the research material obtained from living human subjects in the form of specimens, records, or data.
Describe any data that will be recorded on the human subjects involved in the project.
Describe the linkages to subjects and indicate who will have access to subject identities.
Provide information about how the specimens, records, or data are collected and whether material or data will be collected specifically for your proposed research project.

c. Potential Risks

Describe the potential risks to subjects (physical, psychological, social, legal, or other), and assess their likelihood and seriousness to the subjects.
Where appropriate, describe alternative treatments and procedures, including the risks and benefits of the alternative treatments and procedures to participants in the proposed research.

2. ADEQUACY OF PROTECTION AGAINST RISKS

a. Recruitment and Informed Consent

Describe plans for the recruitment of subjects (where appropriate) and the process for obtaining informed consent. If the proposed studies will include children, describe the process for meeting requirements for parental permission and child assent.
Include a description of the circumstances under which consent will be sought and obtained, who will seek it, the nature of the information to be provided to prospective subjects, and the method of documenting consent. Informed consent document(s) need not be submitted to the PHS agencies unless requested.

b. Protection Against Risk

Describe planned procedures for protecting against or minimizing potential risks, including risks to confidentiality, and assess their likely effectiveness. Where appropriate, discuss plans for ensuring necessary medical or professional intervention in the event of adverse effects to the subjects.
Studies that involve clinical trials (biomedical and behavioral intervention studies) must include a description of the plan for data and safety monitoring of the research and adverse event reporting to ensure the safety of subjects.

3. POTENTIAL BENEFITS OF THE PROPOSED RESEARCH TO THE SUBJECTS AND OTHERS

Discuss the potential benefits of the research to the subjects and others.
Discuss why the risks to subjects are reasonable in relation to the anticipated benefits to subjects and others.

4. IMPORTANCE OF THE KNOWLEDGE TO BE GAINED

Discuss the importance of the knowledge gained or to be gained as a result of the proposed research.
Discuss why the risks to subjects are reasonable in relation to the importance of the knowledge that reasonably may be expected to result.

5. DATA AND SAFETY MONITORING PLAN (if applicable)

If your research includes a clinical trial, create a heading entitled "Data and Safety Monitoring Plan." Provide a general description of a monitoring plan that you plan to establish as the overall framework for data and safety monitoring.

Vertebrate Animals. For all applications involving vertebrate animals, the applicant must address the following five items. These five points may be copied and pasted directly into the application.

1. Provide a detailed description of the proposed use of the animals in the work outlined in the Research Design and Methods section. Identify the species, strains, ages, sex, and numbers of animals to be used in the proposed work.
2. Justify the use of animals, the choice of species, and the numbers to be used. If animals are in short supply, costly, or to be used in large numbers, provide an additional rationale for their selection and numbers.
3. Provide information on the veterinary care of the animals involved including the name of the supervising veterinarian. Include information from the Association for Assessment and Accreditation of Laboratory Animal Care International: the name of the accredited parent organization (e.g., University of X) and the certificate number and date of last inspection.
4. Describe the procedures for ensuring that discomfort, distress, pain, and injury will be limited to that which is unavoidable in the conduct of scientifically sound research. Describe the use of

analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices, where appropriate, to minimize discomfort, distress, pain, and injury.

5. Describe any method of euthanasia to be used and the reasons for its selection. State whether this method is consistent with the recommendations of the Panel on Euthanasia of the American Veterinary Medical Association. If not, present a justification for not following the recommendations

12. LITERATURE CITED

13. APPENDIX

Include letters of support from the department chairs, and associate investigators (required). No page numbering is necessary for Appendix. The appendix can include:

- Application for coursework or degree program at an accredited graduate school
- Up to 5 publications, manuscripts (***accepted*** for publication), abstracts, patents, or other printed materials directly relevant to this project. *Do not include manuscripts* ***submitted*** *for publication.*
- Publications in press**:** Include only a publication list with a link to the publicly available on-line journal article or the NIH PubMed Central (PMC) submission identification number. Do not include the entire article.
- Manuscripts accepted for publication but not yet published: The entire article should be submitted and may be stapled.
- Manuscripts published but an online journal link is not available**:** The entire article should be submitted and may be stapled.
- Surveys, questionnaires, data collection instruments, clinical protocols, and informed consent documents. These may be stapled as sets.
- Original glossy photographs or color images of gels, micrographs, etc., provided that a photocopy (may be reduced in size) is also included within the 12-page limit of *Items a-d* of the research plan. *No photographs or color images may be included in the Appendix that are not also represented within the Research Plan.*

Do not use appendix to circumvent page limitations for research plans. Do not include experimental methods, protocols or figures that should be incorporated within the research project description.

Applicant (*Last, first, middle*): _____

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_____ Personal Statement

_____ Role of Participants

_____ Biographical Sketch

_____ Resources and Environment

_____ Detailed Budget

_____ Other Support

_____ Ethics

_____ Literature Cited

_____ Appendix

_____ Statement of Conditions

Emergency Medicine Foundation
Information Page

Full Name with Titles:_____

Name of Institution:_____

Grant Category:_____

Project Title:_____

Amount Requesting:_____

Mentor, if applicable:_____

Principal Investigator *(Last, first, middle)*

STATEMENT OF CONDITIONS GOVERNING THE EMERGENCY MEDICINE FOUNDATION GRANT

It is understood that any Emergency Medicine Foundation Research Grant approved by the Emergency Medicine Foundation will be made with the following conditions:

1. Institutional overhead is not allowed.

2. The principal investigator's institution is organized for humanitarian purposes and is not a profit-making organization.

3. All reports of work achieved with this grant will acknowledge the support of the Emergency Medicine Foundation and the co-sponsor, if applicable.

4. Any discovery that arises from work supported in part by the Emergency Medicine Foundation will be submitted for publication. Two copies of each publication will be furnished to the Emergency Medicine Foundation.

5. Independent progress reports by the applicant will be submitted to the Emergency Medicine Foundation mid-project, and within thirty days of completion of the funding period. Additional reports may be required. The Emergency Medicine Foundation will maintain the copyright of all such reports.

6. Participation in ACEP Research Forum to give an abstract presentation is required. This event takes place at the end of your project. Research Forum is held each year during the American College of Emergency Physicians Scientific Assembly. Grant funds may not be used for travel.

7. If the named principal investigator leaves the institution or terminates research in the designated field, all remaining funds revert to the Emergency Medicine Foundation. If unused funds exist at the completion of the project, all remaining funds revert to the Emergency Medicine Foundation.

8. Patent rights will conform to institutional standards. If none exist, the Emergency Medicine Foundation reserves the right to protect such interests.

9. No research proposal will be funded unless the Principal Investigator and the Institutional Official of the sponsoring institution affirm:

    a. That the investigation(s) proposed in this application are endorsed by the Animal and/or Human Subjects Committee or other designated body of the preceptor's institution, and
    b. That any research involving human subjects conforms with the principles of the Helsinki Code of the World Medical Association, and
    c. Research involving animals or human subjects must be approved by the institutional review board (IRB), or its equivalent, and a copy of the approval or pending approval sent with this application. IRB approval must be documented prior to dispensation of Emergency Medicine Foundation funds.
    d. That research involving vertebrate animals will conform with the "Guiding Principles in the Care and Use of Animals" as approved by the Council of the American Physiological Society.
    e. Research involving vertebrate animals must have approval from the institutional Animal Care and Use Committee.

_____ /_____

Date Signature of Principal Investigator Type Name of Principal Investigator

_____ /_____

Date Signature of Mentor, if applicable Type Name of Mentor

_____/_____

Date Signature of Institutional Official Type Name of Institutional Official