June 15, 2010

Mr. Brian Geyer
University of Arizona College of Medicine - Phoenix
Arizona Health Sciences Center
1501 North Campbell Ave., P.O. Box 245017
Tucson, AZ 85724-5018

Dear Mr. Geyer:

Congratulations! You have been selected to receive the award for the **Best Medical Student Presentation:** *Bypassing Out-of-Hospital Cardiac Arrest Patients to Specialty Centers Results in Improved Survival*, at the SAEM Annual Meeting held in Phoenix, AZ, June 3-6, 2010. Our decision was based on reviews of your abstract, manuscript, and presentation at the meeting.

This award recognizes the high quality of your research and on behalf of SAEM we thank you for submitting your work to the flagship event of our society. Your name will be announced in the July-August issue of the SAEM Newsletter and you will be recognized and presented an award plaque during the Business Meeting at the SAEM 2011 Annual Meeting in Boston, June 1 – 5. Hopefully we can look forward to seeing your research again at future meetings.

Congratulations again for receiving this honor and best wishes in your future scientific endeavors.

Sincerely,

Society for Academic Emergency Medicine
2010 Program Committee

Bypassing Out-of-Hospital Cardiac Arrest Patients to Specialty Centers Results in Improved Survival

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Background: The implementation of a network of cardiac arrest centers (CACs) emphasizing the application of guideline-based post-cardiac arrest therapies has been shown to improve survival from out-of-hospital cardiac arrest (OHCA). Here we assess the effect of a pre-hospital bypass protocol directing patients to CACs on outcome.

Methods: We analyzed consecutive adult OHCA between 12/14/07 and 6/30/09 from a single urban/suburban county containing 3.9 million inhabitants in 9,224 sq mi. and represented by 12 officially recognized CACs. Patients were subdivided into: 1) transported to the nearest hospital which was not a CAC (non-CAC group), 2) transported to the nearest hospital which was a CAC (CAC group), and 3) directed from the nearest non-CAC hospital to a CAC (bypass group). Descriptive statistics were employed.

Results: Seven hundred and twenty-five OHCAs of presumed cardiac etiology were analyzed: 369 (50.9%) non-CACs, 296 (40.8%) CACs, and 60 (8.3%) bypass. Survival to hospital discharge was 8.7% in the non-CAC group (32/369), 13.1% in the CAC group (41/296) and 20.0% in the bypass group (12/60) [OR 2.63 (1.27-5.46) vs. non-CAC group]. For the bypass group, the average transport distance was 4.99 miles (1.1-9.4) and the average increase in transport distance was 1.12 miles (0.1-8.6). After CAC arrival, 15 (25%) patients in the bypass group received therapeutic hypothermia (93% of eligible) and 10 (16.6%) received emergent percutaneous coronary intervention (PCI).

Conclusions: The traditional practice of directing OHCA patients to the nearest hospital may not result in optimal outcomes. In this system, the bypassing of local hospitals in favor of a CAC was associated with increased survival to hospital discharge.