Guest Editor Letter
Move the Needle on Emergency Care
Katherine L. Heilpern, M.D.

The Evolution of the Specialty of Emergency Medicine
Todd Berger, M.D., FACEP, Philip Shayne, M.D., FACEP

911 — When Good Medicine Is Needed Outside the Walls of the Hospital and Clinic
Alexander Isakov, M.D., M.P.H.

Trauma Care: An Emerging Vision for Metro Atlanta and Beyond
Leon L. Haley Jr., M.D., M.H.S.A., Bruce Ziran, M.D.

Pediatric Emergency Care in Atlanta

Using Technology and Systems Thinking to Enhance Emergency Department Performance
Ricardo Martinez, M.D., FACEP, Sylvan Waller, M.D.

Violence and Injury — An Eye Towards Prevention, a Focus on Research
Debra Houry, M.D., M.P.H.

The Future of Emergency Care: What Does this Mean for Atlanta?
Robin Hemphill, M.D., M.P.H., and Arthur Kellermann, M.D., M.P.H.

Emergency Medicine? I Didn’t Know That!
Brent W. Morgan M.D., Kevin A. Osgood, M.D., Michael A. Ross, M.D., FACEP, Helen Gelly, M.D., Maureen Olson, M.D., FACEP

Editor: Barry Silverman, M.D.
MAA Member Since 1973

Sawyer Direct
Publisher: John Sawyer
SawyerDirect.com
E-mail: jsawyer@sawyerdirect.com
Phone: (719) 599-7220

ATLANTA Medicine is published by Sawyer Direct and Sunshine Media, Inc., publishers of MD News Metro Atlanta

SUNSHINE MEDIA
Sunshine Media, Inc.
735 Broad Street, Suite 708
Chattanooga, TN 37402
(423) 266-3234 | sunshinemedia.com

Chief Executive Officer: Webster Andrews
Chief Financial Officer: David McDonald
President: Tony Young
Chief Operating Officer: Ann Farmer
Executive Vice President of Business Development: Jason Provonsha
Vice President of Marketing Development: Jason Skinner
Vice President, MIS: Eric Hibbs
Senior Closing Administrator: Joanna Nash
Closing Administrator: Brian Shakley

FINANCE/ACCOUNTING
Chief Financial Officer: Webster Andrews
Controller: Grady Oakley
Financial Services: Julie Churay, Doug Condra, Lori Elliott

EDITORIAL/DESIGN
Executive Vice President of Creative Services: J. Kevin Tugman
Design Production Manager: Tanna Kempe
Editorial Manager: Shannon Wisbom
Production Coordinator: Kristen Gantler
Creative Services: David Andrews, Travis Knight, Katie Hammond, Katie Myles, Michael Simmons

HR/IT
Manager of Human Resources: Carrie Hildreth
Vice President, MIS: Eric Hibbs

Although every precaution is taken to ensure accuracy of published materials, Atlanta Medicine cannot be held responsible for opinions expressed or facts supplied by its authors.

Copyright 2010, Sunshine Media, Inc. All rights reserved. Reproduction in whole or in part without written permission is prohibited.

Postmaster: Please send notices on Form 3579 to 735 Broad Street, Suite 708, Chattanooga, TN 37402.
Access to emergency care is a public trust. Whether it’s a child who has chased a ball into traffic, a loved one who has just suffered a stroke, a stranger who has just collapsed in full cardiac arrest or a multicar pile up with injuries on the highway, all citizens trust that competent emergency medical care is just a phone call away.

The response network is a complex amalgam of government and private agencies diligently working to deliver the right care in the right time. The mission of the emergency medical services (EMS) system is patient-centric, and where patients are involved, physicians must demonstrate leadership to help ensure that patients receive the timely and competent care they deserve. The faculty and staff of Emory’s Department of Emergency Medicine, Section of Prehospital and Disaster Medicine are practicing emergency medicine physicians, who are EMS fellowship trained and dedicated to the health and welfare of the community by promoting excellence in out-of-hospital care, preparedness and injury prevention.

ADVANCES IN OUT OF HOSPITAL CARDIAC ARREST

In out-of-hospital cardiac arrest, every minute counts, and most often, the EMS system is activated, but how can EMS responders know if they are responding fast enough to save lives? How do providers know if the community is providing life-saving CPR in advance of the emergency responder’s arrival? We know that by decreasing the time to defibrillation, we incrementally improve survival, and we know that bystander CPR improves survival three-fold. For U.S. cities that report out-of-hospital cardiac arrest survival, the results vary 10-fold from 3% to 35%. In a 2003 USA Today investigative report, Atlanta was identified among the lowest tier cities, a city without the data or the capacity to report its out-of-hospital cardiac arrest survival. Mayor Shirley Franklin thought that was unacceptable. An Emory emergency medicine physician agreed, and Bryan McNally, M.D., and colleagues stepped into action. Partnering with the Centers for Disease Control and Prevention (CDC) and the American Heart Association (AHA) they developed the Cardiac Registry to Enhance Survival (CARES), which was piloted in Atlanta in 2005. CARES has since been adopted by more than 40 communities in 18 states, representing approximately 23 million people.

The CARES registry collects standardized, confidential, out-of-hospi-
tal cardiac arrest survival data and shares it with the local EMS providers and communities, giving them the opportunity to evaluate, benchmark and improve their survival rate from sudden cardiac death. For example, Grady EMS, Atlanta's 911 ambulance provider, responded to the data and acted to change its system to optimize EMS response times. Through education efforts supported by the mayor's office, the likelihood of bystander CPR in Atlanta more than doubled to 17%. Two years after CARES was implemented and system changes executed, Atlanta's cardiac arrest survival increased from 4% to 15%. While this represented a dramatic improvement and is and better than the 6% national average, we believe there remains a tremendous opportunity to save more lives. Benchmark cities achieve 30-40% bystander rates of CPR and 30-40% cardiac arrest survival rates. For metro Atlanta to reach its aspirational peer cities, it will require a depth and strength of commitment from all stakeholders: bystanders, 911 call centers, first responders, ambulance providers, hospitals, and city and county governments.

Another innovation that improves the likelihood of surviving an out-of-hospital cardiac arrest is active patient cooling with chilled intravenous fluids, inducing hypothermia. Emory emergency medicine physicians Matt Bitter, M.D., and Gerald Beltran, D.O., Medical Directors of Sandy Springs Fire Rescue, developed and maintain a collaborative system with St. Joseph’s to initiate hypothermia for cardiac arrest victims, the first such system in the metro Atlanta area. The AHA encourages active cooling of cardiac arrest patients, yet many communities have not yet adopted this intervention.

**DISASTER PREPAREDNESS AND RESPONSE**

Systems outcome data and medical innovations improve emergency response systems that ultimately impact our very own lives. Section of Prehospital and Disaster Medicine faculty and staff also consider the needs of the community. The Emory Office of Critical Event Preparedness and Response, founded and led by an emergency medicine physician, broadly has as its mission to identify and coordinate the resources of Emory to manage its emergencies and assist in the management of crises in the broader community. In 2005, Emory faculty and staff from the schools of medicine, nursing and public health partnered with Emory Healthcare, Grady Health System, Children’s Healthcare of Atlanta and other community partners to address the health needs of Katrina evacuees streaming into metro Atlanta. In 2009, when the H1N1 pandemic flu threatened to strain health care resources, Emory faculty, in collaboration with the State Division of Public Health, the Robert W. Woodruff Foundation and national partners, developed the Strategy for Off-Site Rapid Triage, a risk-stratification tool designed to assess illness severity and risk factors in an effort to direct individuals to the place most suitable for their condition — home for convalescence or clinic/ER for further evaluation and care. The CDC ultimately adopted a version as a clinician decision support tool, and the Department of Health and Human Services (Flu.gov) and Microsoft Corporation (H1N1 Response Center) adopted a Web-based version for individual self-assessment.

Emergency medicine physician Arthur Yancey, M.D., Medical Director of Grady EMS, which responds to over 96,000 requests for emergency medical assistance per year in the city of Atlanta, is working with colleagues to institute a novel ambulance destination program that will afford selected patients more convenient and time-efficient care in community clinics, an alternative to often-congested emergency departments. Emergency medicine physician Melissa White, M.D., also an Assistant Director of Emory’s emergency medicine residency program, educates new medical school graduates to help develop awareness among physicians of the impact of emergency medical services in the community. As Rural Metro Medical Director, she works diligently as that ambulance responder moves to assist DeKalb County with its EMS needs.

Emory Flight and Rescue Air One stands ready all day, every day to provide care to critically ill and injured citizens in North and Central Georgia. The nurse and paramedic flight crews, receiving medical oversight from Emory emergency medicine physicians, respond to requests from local EMS agencies and community hospitals to manage and transport trauma, burn, stroke and heart attack victims for time-critical evaluations and interventions. They work hard to make sure the right patient gets to the right place in the right time.

Section of Prehospital and Disaster Medicine physicians work to improve EMS outcomes every day, not just because it’s a job, but because they want to improve the communities in which they live. How can you help? Support public funding for EMS. Support transparency and strong community oversight of the delivery of EMS services. Support data systems like CARES that provide information essential to managing complex response systems. Identify and break down the barriers that prevent data sharing and process improvement. Hug a paramedic, EMT or nurse who works diligently to maintain their knowledge, skills and competency in the service of their community. They might just save the life of a loved one someday.