Illinois EPIC
Emergency Physicians Interim Communique

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PRESIDENT'S LETTER

Get Involved with ICEP: Start by Sharing Your Opinions on Naloxone Administration

Valerie J. Phillips, MD, FACEP

As your new ICEP President, I would first like to say thank you for the opportunity to participate at this level. I am proud to work alongside emergency physicians throughout our state that impress me every day by their commitment to provide the best emergency care for our patients in challenging environments and circumstances. I am excited to see what this year brings, and excited that our ACEP President-Elect is our own ICEP member Rebecca Parker!

There will always be multiple challenges for emergency medicine; some just emerging, some long-standing but ever-changing, and still others that are ongoing and festering. We have always practiced in a fish bowl, with an abundance of Monday morning quarterbacks, but in times such as these it feels as if the fish bowl glass is an ever more powerful magnifying glass. Long gone are the days when the emergency physician's major role was resuscitation and stabilization. We are now pivotal players in developing and participating in systems of care for our most at-risk patients: sepsis, stroke, STEMI, trauma, and more. I feel very strongly that our ability to make a difference for our patients, as well as for our own well-being and career longevity, lies in our willingness to participate in the conversations that are taking place with us, around us, and often, for us or in place of us.

We are all busy with our professional commitments and our personal lives. I want to emphasize though, that involvement in ICEP is available even in small doses. When I first became involved, I had more time to offer. Later, as my professional career and family life developed, I felt that I had less time to offer. I then realized that my continued participation would still benefit me, even with limited availability. The more EM physicians that take part, the more effective we can be as an organization to make a difference. Involvement can be as simple as sending an email to a Board member on an issue that matters to you, or more time-intensive, such as becoming a member of a committee. No amount of participation is too little. Visit ICEP.org for opportunities to get involved.

In October, ICEP delegates will represent Illinois at the ACEP Council meeting preceding Scientific Assembly. It is during this session that proposed ACEP resolutions on issues facing EM physicians throughout the nation, will be presented, amended, and voted. It is imperative that our ICEP Councilors know the concerns of Illinois EM physicians — your concerns — and carry these forward. .

For example, at the ACEP Council meeting over the past few years, there have been several resolutions written, modified, and ultimately adopted regarding the multitude of concerns around naloxone prescribing in the ED, and naloxone use beyond EMS providers, such as law enforcement and lay people. Our recent Board discussion on this topic was complex and intriguing. It was apparent that Illinois, as we often see, functions differently on many levels compared to other states. I want to share some of the Board discussion and welcome your input. Consider the following points:

The naloxone debate is sometimes reduced to an emergency department issue alone. If we would "just prescribe naloxone for every opioid overdose patient, or chronic pain patient, or family member, or neighbor, or teacher…..We, our profession, could substantially decrease the mortality of acute opioid overdose"— right?

We've heard it said before when it comes to lifesaving interventions, "you can't get worse than dead". I first found myself using this phrase when I was teaching CPR to lay people, and realized their greatest fear was harming the person they were trying to save, who was already pulseless and apneic. With that attitude, many have been in support of going beyond putting naloxone in the hands of paramedics, EMTs, and first responders, to now adding law enforcement with the necessary training program and oversight needed to use it appropriately. If a patient with a likely opioid overdose is discovered and in need of life-saving inter-

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Get Involved with ICEP: Start by Sharing Your Opinions on Naloxone Administration

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ventions, the sooner naloxone is administered, the better likelihood of success.

Our own EMS data demonstrates a wide range of response times to time of naloxone administration when confined to EMS, especially when considering time of dispatch. If there are trained personnel available to administer naloxone in the appropriate circumstance, while EMS is en route, there is a better chance that the patient will survive.

What about lay people administering it? Loved ones of opioid addicted patients are sometimes interested in having access to naloxone, hoping to be the safety net for someone they fear will overdose. If you support administration by lay people, what is the best model to make it available? Should it be available only by prescription, or should pharmacists provide it, as they do with some immunizations? Should the ED physician prescribe it for a person who is not actually their patient? Should the patient's primary physician prescribe it? Unfortunately when the scenario involves opioids obtained illegally, it is infrequent that these patients have a primary physician.

Do you prescribe naloxone in your ED? Have you offered it or ever been approached by a family member or significant other of a patient? Alternately, what if the patient asks for it? How would you approach this? With naloxone in their possession, does it empower them to engage in greater use of their drug of choice — an insurance policy, so to speak?

What are the liability risks with this model? Notably in Illinois, in a recent bill regarding naloxone administration, physicians were one of the provider groups that were removed from the liability protection. ICEP has lobbied to reinsert that protection.

There were concerns voiced about how naloxone should be available, including over the counter. Consider that it has a reasonable safety profile: The most concerning issues raised were failure to treat in the appropriate circumstance (similar to the CPR fear); underdosing with insufficient response; precipitating severe withdrawal symptoms in a chronic pain patient; and the likelihood that the patient would receive further care afterward. (i.e., a false sense of security might exist after someone regains consciousness, not respecting the different half-lives of the intoxicant and the antidote.)

By comparison, how many have written an Rx for an epinephrine auto injector? Do you even think twice about it? What about subcutaneous anticoagulant injections intended for outpatient use, such as enoxaparin? What level of patient education did you provide at the time? Was there a video or even a preprinted set of instructions? Was the education provided by you, or delegated to another clinical or nonclinical person, a pharmacist or care manager in the ED perhaps? Do you even have the privilege of these resources in your ED? Certainly, most do not.

None of these questions even address the issue of funding. We can review how similar efforts are being approached nationally — but in Illinois, we can't even get a budget passed, let alone create new line items to support endeavors such as this one.

Even among a gathering of physicians, the multi-faceted issue of naloxone raises many questions with no clear-cut answers. We want you to weigh in: Send your opinions and experiences to vphillips@icep.org. Your feedback will be collated and presented to the Board of Directors at its next meeting, and may be published in a future issue of the EPIC.

As I begin my term as president, I want this year to be about your involvement. My goal is to see ongoing input from our members so that as an organization we are truly informed by our members on every issue that we consider. Thank you for the opportunity to serve. I look forward to our partnership.

— Valerie J. Phillips, MD, FACEP
ICEP President

Survey Research Study of EM Physicians Seeks Participants

A survey research study of emergency medicine physicians in Illinois is being conducted out of Northwestern University. The survey should take 10 minutes or less and can be completed entirely online. The brief survey will be anonymous. Questions will include information about training, experience, and current clinical practice setting. All emergency physicians practicing clinically are encouraged to participate by going to http://bit.do/EMsurvey.
PI: Dr. Zachary Pittsenbarger. IRB study number: STU00202932.

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ICEP Welcomes New Board of Directors Members, Officers for 2016-17 Term

John W. Hafner, Jr., MD, MPH, FACEP turned over the gavel to incoming President Valerie J. Phillips, MD, FACEP, at the Annual Business Meeting that took place during the Spring Symposium on May 5, 2016 at Northwestern Memorial Hospital.

Dr. Phillips will serve as President for the 2016-2017 term. Dr. Hafner will serve as Past President.

The results of the Board elections were also announced at the meeting. Re-elected to the Board of Directors was Edward P. Sloan, MD, MPH, FACEP. Elected to their first terms were Napoleon Knight, MD, FACEP and Seth Trueger, MD, MPH, as well as Erik Frost, DO as the Board's Resident Member.

The 2016-2017 Officers were also selected.

Napoleon Knight, MD, FACEP

Edward P. Sloan, MD, MPH, FACEP

Seth Trueger, MD, MPH

Erik Frost, DO Resident Member

Yanina A. Purim-Shem-Tov, MD, MS, FACEP was elected President-Elect. Janet Lin, MD, MPH was elected Secretary-Treasurer. Henry Pitzele, MD, FACEP was elected Member-at-Large.

At the meeting, outgoing Board members Mark Cichon, DO, FACEP, FACOEP, David Griffen, MD, PhD, FACEP, John Williams, MD, FACEP and Resident Member Dallas Holladay, DO were recognized for their service to ICEP. Dr. Hafner was also presented with a plaque that recognized him for his year of service as ICEP President.

Don't Miss Drs. Chris Kang, Rob Rogers at Resident Career Day on September 29

Mark your calendar and register now for ICEP's Resident Career Day on Thursday, September 29 at Northwestern Memorial Hospital in Chicago. Registration is free for all ICEP members.

ICEP's half-day program is designed to provide resources and advice to residents, medical students, and young physicians as they embark on their emergency medicine careers.

The 2016 program features:

- Christopher S. Kang, MD, FACEP, of the ACEP Board of Directors, discussing the benefits of involvement in professional organizations to enhance clinical practice and satisfaction while improving patient care
- Rob Rogers, MD, of The University of Kentucky College of Medicine, demonstrating the value of lifelong learning as an essential part of maintaining clinical excellence throughout your career
- William Sullivan, DO, JD, FACEP, reviewing common physician employment contract terms and simple negotiating tactics to help create a favorable contract

The program also includes the "Speed Dating" Career Fair where participants network with the field's top recruiters in a round-table format to dicover career opportunities and make key connections with potential employers.

Medical students and 1st year residents who don't wish to participate in the Career Fair can sit down with ACEP President-Elect Rebecca Parker, MD, FACEP for an open forum discussion of current issues.

Resident Career Day also includes a short presentation that explores the physician's role in the organ and tissue donation process coordinated by Gift of Hope.

Life after residency brings a new set of challenges. Resident Career Day focuses on giving you the tools you need to meet this challenges head on and turn them into opportunities. Register at ICEP.org to attend.

ICEP Members Lobby for Change at ACEP Leadership & Advocacy Conference in D.C.

ICEP was well represented at ACEP's Leadership and Advocacy Conference in Washington, D.C., in May, with 14 members in attendance to meet with legislators and lobby for change.

ACEP President-Elect Rebecca Parker, MD, FACEP and ICEP Executive Director Ginny Kennedy Palys were joined by: Amit Arwindekar, MD, FACEP, Kassandra Cooper, DO, John Downing, DO, Lydia Edokpayi-Aluyi, MD, FACEP, Rebecka Lopez, MD, Susan Nedza, MD, MBA, FACEP, Charles Nozicka, DO, Alejandro Palma, MD, Chinmay Patel, DO, Peter Samuel, MD, MBA, Willard Sharp, MD, FACEP, and David Trotter, MD.

Drs. Lopez, Cooper and Patel met with Representatives Bustos and Davis, Senators Kirk and Durbin, and staffers with the offices of Representatives LaHood and Shimkus. They told the legislators the stories of their patients and their ERs. They discussed their views of the opioid epidemic and ACEP's solutions, mental heath reform needs, access to controlled substances for medics and the repeat venture of gaining medical liability for patient visits mandated by EMTALA.

Kassandra Cooper Tucker, DO, MS

Perspective: Kassandra Cooper Tucker, DO, MS

I would like to thank the ICEP members and Leadership Fellowship selection committee for allowing me the opportunity to participate in LAC and become more involved on a statewide and national level.

Before travelling to D.C., I have had the experience of going to our state's capitol and talking with our legislators about issues that affect us on a daily basis. My experiences visiting our state capitol and in D.C. has helped me understand and realize my passion for advocacy. Many of the legislators I met with were not only welcoming to our views on issues but were also excited to join us and support the bills that affected our field of medicine. They loved hearing about our experiences and were eager to know what affected us as the physicians on the front line of our hospitals.

Furthermore, the Leadership and Advocacy Conference was influential on my career aspirations and allowed me the opportunity to hear from the forefront leaders in our field. Their passion for our specialty excites me to pursue further leadership positions to help make a difference. In the emergency room, it is hard to see the difference we make day in and day out, though after a weekend at the LAC it is clear that our emergency physician leaders are not only touching patients' lives but also making it a better workplace for our future. It was an eye-opening experience to hear about all of the upcoming changes and I know that our leaders will continue to fight for our right for fair and equal treatment and pay.

The excitement and education I received by being a part of this conference has strengthened my passion to further pursue leadership positions to help make a difference for our members. Again, thank you for this opportunity to not only learn more about the leadership and advocacy side of medicine but also for the encouragement to pursue my passion.
— Kassandra Cooper Tucker, DO, MS

ICEP members Drs. Kassandra Cooper, Rebecka Lopez and Chinmay Patel meet with U.S. Rep. Rodney Davis (R-Ill.) at the ACEP Leadership & Advocacy Conference in Washington, DC, in May.

ICEP Leadership Fellows Dr. Kassandra Cooper and Dr. Chinmay Patel prepare to meet with legislators at the Capitol during ACEP LAC.

Chinmay Patel, DO

Perspective: Chinmay Patel, DO

Recently I had the opportunity to attend ACEP's annual Leadership and Advocacy Conference in Washington, D.C. As a senior emergency medicine resident, most of my training has focused on triaging and treating acute medical emergencies in the ED. Due to the volume of material to be covered in so little time, not much time in our training is devoted to studying our role as physicians outside the clinical setting. At this conference, I was able to witness emergency physicians interacting with politicians on behalf of our specialty and our patients. Amazing to me was that the same skill set required to triage and stabilize acute medical emergencies was also applied by this highly dedicated group of ED physicians toward problems facing our specialty and our patients in emergency departments across the United States.

Everything about the conference focused on providing the highest quality of care for every patient at any time in any location. Some of the major topics covered pertained to the boarding of psychiatric patient in the emergency department and the opioid epidemic. What was obvious to me was that just as our patients deserve highly qualified and trained physicians at the bedside to care for their medical emergencies, there is also a high need and demand for highly qualified and trained physicians to advocate on behalf of those same patients to ensure they continue to get the care they so desperately need and deserve.
— Chinmay Patel, DO

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Highlights of 2016 Spring Symposium

More than 275 ICEP members, residents and medical students attended ICEP's Spring Symposium and Annual Business Meeting on May 5 at Northwestern Memorial Hospital.

The focus of the educational program was a panel discussion on critical care medicine, featuring experts Matthew Siedsma, MD, David Barounis, MD and Nicholas Mohr, MD, MS, FACEP.

Heather Prendergast, MD, MS, MPH, FACEP presented, in conjunction with Novartis, a seminar on the heart failure management paradigm.

Representatives from all of the Illinois residencies competed in the Resident Speaker Forum and John Cook, DO, of John H. Stroger Jr. Hospital of Cook County EM residency was named the winner for his presentation on ED ECMO.

At the Annual Business Meeting, ICEP honored two long-time members. Bill Sullivan, DO, JD, FACEP, was presented with the Bill B. Smiley Award. John Ortinau, MD, FACEP, was presented with the ICEP Meritorious Service Award.

LEFT: Outgoing president Dr. John Hafner passes the gavel symbolizing the ICEP presidency to incoming president Dr. Valerie Phillips at the 2016 Spring Symposium. RIGHT: John H. Stroger Jr. Hospital of Cook County EM Residency Program Director Dr. Steve Bowman congratulates his resident, Dr. John Cook, on winning the Resident Speaker Forum competition.

More photos from the Symposium are online at ICEP.org and on ICEP's Facebook page! You can also download the Statewide Research Showcase eBook that includes all abstracts submitted for presentation in 2016.

NEAR: Critical care panelists Dr. Matthew Siedsma, Dr. David Barounis, and Dr. Nicholas Mohr pose with moderator Dr. Janet Lin.

FAR: Dr. John Hafner congratulates ICEP awards honorees Dr. Bill Sullivan (top), recipient of the Bill B. Smiley Award, and Dr. John Ortinau (bottom), recipient of the ICEP Meritorious Service Award.

IDPH Co-Hosts Antimicrobial Stewardship Summit

The Illinois Summit on Antimicrobial Stewardship, co-hosted by the Illinois Department of Public Health, will be July 12 at the Memorial Center for Learning and Innovation in Springfield. All emergency physicians are invited to attend. Registration cost is $28. The 1-day program will focus on:

- Regulatory and policy changes as well as recommendations for antimicrobial stewardship at the state and national level.
- Current guidelines for appropriate antimicrobial use for particular disease states.
- Effective behavior change and communication techniques to manage patient expectations and enhance health care team engagement
- Evidence-based strategies for implementing and evaluating antimicrobial stewardship programs and interventions.

More information is available at ICEP.org, including a link to register online.

ICEP Committee Applications Due September 1

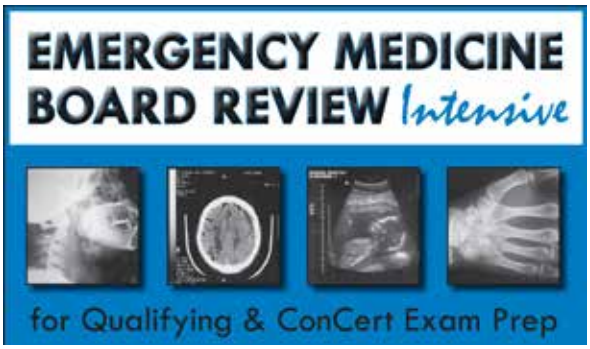
ICEP is accepting applications for members who wish to serve on ICEP Committees in 2016-17. ICEP committees meet several times a year at the ICEP office or by conference call. The full list of ICEP committees with their descriptions can be found at ICEP.org.

The deadline to submit a committee application is September 1, 2016. Members will be notified of committee appointments by email in late September.

All current committee members who wish to remain on their committees must submit an application.

All applications must be completed online. The application can be found at ICEP.org.

Get Ready for Your Boards with ICEP's Review Course



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Emergency Medicine Board Review *Intensive* prepares emergency physicians for initial certification or recertification exams in emergency medicine with a focused 4-day program that maximizes your study time to help you pass your Boards.

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Statewide Research Showcase Abstract Round-Up with ICEP Research Committee

The Statewide Research Showcase is back for 2016! Each issue of EPIC will feature the Abstract Round-Up. Several abstracts that were selected for the Statewide Research Showcase at the 2016 Spring Symposium will be printed, with brief commentary provided by a member of the Research Committee. This month's commentary is provided by Shu B. Chan, MD, MS, FACEP.

Pharmacological Induction of Torpor/Hypothermia as a Strategy for Improving Post Cardiac Arrest Outcomes

Willard W. Sharp, MD, PhD, Lin Piao, PhD, Yong Hu Fang, MD; The University of Chicago, Chicago, IL

Background:
Post-cardiac arrest hypothermia and targeted temperature management have been shown to improve survival in patients following cardiac arrest resuscitation. Despite the effectiveness of hypothermia, the ideal degree and timing of cooling is unknown. In addition, there are barriers to the induction of hypothermia in the out of hospital and critical care settings, potentially limiting its effectiveness and use. Hypothermia can also be induced by the inhibition of metabolism. This strategy, known as torpor, is used by some small species of animals in order to increase their survival during periods of environmental. Recently, torpor induction has been demonstrated to be mediated by elevated levels of circulating 5'adenosine monophosphate (5'AMP).

Objective:
To determine if 5'AMP injection rapidly induces torpor/hypothermia in mice and to assess its effects on post cardiac arrest outcomes including myocardial function and survival.

Methods/Results:
C57BL/6 wild type mice injected intraperitoneal with 0.5 mg/g or 0.7 mg/g 5'AMP demonstrated a rapid lowering of core body temperature from 37°C to 32°C within 20 minutes and reached a nadir of 28°C by 60 minutes. The duration of this effect was dose dependent lasting 2.5 hours (0.5 mg/g) and 3.5 hours (0.7 mg/g). Mice remained awake, but were lethargic during this time, showed no ill effects, and completely recovered following treatment. Next, we tested 5'AMP pre-treatment in a murine model of asystolic cardiac arrest. Anesthetized and ventilated adult female C57BL/6 wild-type mice were injected 30 min prior to cardiac arrest with 5'AMP or PBS (control). Mice underwent a 12 min KCl-induced cardiac arrest followed by cardiopulmonary resuscitation. 5'AMP (0.5mg/g) treated mice demonstrated improved myocardial function (%Fractional Shortening (%FS), 50±3% vs. 28±3%) and increased survival (100% vs. 50% at 2 hours, n=10, $p<0.01$). 5'AMP also improved myocardial function and survival when administered at the time of cardiopulmonary resuscitation.

Conclusion / Impact:
The induction of torpor/hypothermia by 5'AMP is rapid, reversible and benign. Torpor induction prior to or during cardiac arrest improves post-cardiac arrest outcomes and is a promising novel therapeutic strategy.

RESEARCH COMMITTEE COMMENTARY:
Since the 1990s, there has been much interest in the basic science community regarding the ability of some animals to achieve protective hypothermia by rapidly reducing metabolism. 5' AMP has been shown to achieve such torpor in many small mammals. This study continues the investigation on mice and hopefully, these studies will eventually lead to human trials.

— Shu B. Chan, MD, MS, FACEP

Psychiatric Patient Length of Stay in the Emergency Department Following Closure of a Public Psychiatric Hospital

Ryan Misek, DO, Ashley Magda, DO, Samantha Margaritis, BS, Robert Long, DO, Erik Frost DO; Midwestern University, Chicago College of Osteopathic Medicine, Franciscan St. James Health, Chicago, IL

Background:
While other studies have analyzed the effect of psychiatric patient boarding in the Emergency Department (ED) on ED crowding, patient care and expenses, no studies to date have investigated the effect on psychiatric patient ED length of stay (LOS) after closing a nearby psychiatric facility.

Objective:
To identify the effect of closing a public psychiatric facility in a major metropolitan area on the ED LOS of psychiatric patients.

Design/Methods:
An observational multicenter cohort study of patients requiring inpatient psychiatric hospitalization was performed. The insurance status, accepting facility type and times of arrival, disposition, and transfer were collected. A two-sample t-test was used to analyze boarding times before and after the public psychiatric hospital closure.

Results:
There was a statistically significant increase in the overall ED LOS of psychiatric patients following the closure of the mental health facility ($t=23.7$, $P<0.0001$) with a mean ED LOS of 238.6 minutes (204.4) prior to, and 854.5 minutes (586.1), after the closure. Psychiatric patients with private medical insurance had a mean ED LOS of 297.9 minutes prior to closure and 465 minutes after closure ($t= -2.530$, $P=0.012$). Medicare/Medicaid patients spent a mean of 416.9 minutes before and 450.4 minutes after closure ($t= -2.087$, $P=0.037$). Patients transferred to a private psychiatric hospital spent a mean of 452 minutes prior to, and 558.8 minutes after closure ($t= -3.086$, $P=0.002$). Patients transferred to an existing public psychiatric hospital spent an average of 1390.9 minutes in the ED prior to closure and 1449.7 minutes after closure, however this was not statistically significant ($t= -.602$, $P= 0.548$).

Conclusion:
Overall there was an average of a 3.5 times increase in LOS for psychiatric patients following the closure of a public mental hospital. There was also an increase in LOS of Medicaid/Medicare and privately insured patient groups following the closure.

Impact:
This study highlights the impact of closing a single inpatient psychiatric facility. This brings

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CHALLENGE YOURSELF AS A U.S. ARMY EMERGENCY MEDICINE PHYSICIAN.
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Statewide Research Showcase Abstract Round-Up with ICEP Research Committee

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attention to the need for increased psychiatric services during a time when there is a nationwide trend towards the reduction of available inpatient psychiatric beds.

RESEARCH COMMITTEE COMMENTARY:
Between 2009 and 2012, Illinois cut $113.7 million in funding from mental health services while ED visits for people experiencing psychiatric crisis increased by 19 percent. Given the current political climate, we can only expect the situation to become worse in Illinois. What is interesting in this study is that after the closing of a public psychiatric facility, now only is the LOS of Medicare/Medicaid psychiatric patients increased but there was a significant increase in the LOS of privately insured patients, highlighting the problem for all patients.
— Shu B. Chan, MD, MS, FACEP

Rapid Response Team Alerts within 24 Hours of Emergency Department Admission: An Analysis of Patients Who Survived Versus Died

Adam J. Rodos, MD, Janet Y. Lin, MD, George B. Hughes, MD, Sara W. Heinert; University of Illinois Hospital & Health Sciences System, Chicago, IL

Background:
A Rapid Response Team (RRT) is a multidisciplinary strategy to improve identification of clinical deterioration and to subsequently decrease the incidence of in-hospital cardiopulmonary arrest. Debate exists about the effectiveness of these systems to improve outcomes, but newer applications have indicated utility as a quality improvement tool.

Objective:
We analyzed patients following an RRT event called within 24 hours of ED admission to identify factors associated with those who died versus those who survived. Identification of patients who are at high risk of clinical decompensation could assist providers in determining appropriate level of care.

Design/Methods:
A single center retrospective review was conducted of all patients admitted through an urban academic emergency department who had an RRT called within 24 hours of admission from November 1, 2012 through March 31, 2015. We compared RRT patients who died versus those who survived across multiple clinical elements. Variables included time of arrival, initial vital signs (temperature, heart rate, respiratory rate, blood pressure, oxygen saturation), presenting complaint, and ED length of stay. Descriptive statistics and Fisher's exact tests were performed using SAS Version 9.3.

Table 1. Descriptive Characteristics- Patients Who Survived vs. Died

	Survived, N=56	Died, N=10	Total	p-value
Age in Years, Mean (SD)	55.9 (18.8)	58.3 (20.1)	56.2 (18.9)	0.710
Female	53.6%	40.0%	51.5%	0.505
African American	46.4%	70.0%	50.0%	
Hispanic	33.9%	20.0%	31.8%	0.584
Time of Arrival:				
• 0601-1200	25.0%	30.0%	25.8%	
• 1201-1800	46.4%	20.0%	42.4%	
• 1801-0000	14.3%	40.0%	18.2%	
• 0001-0600	14.3%	10.0%	13.6%	0.193
Abnormal Triage Vital Signs:				
• Temperature (<36, >38)	20.4%	25.0%	21.0%	0.670
• Heart Rate (<60, >100)	42.9%	70.0%	47.0%	0.171
• Respiratory Rate (<12, >20)	45.5%	40.0%	44.6%	0.750
• Systolic Blood Pressure (<90, >180)	21.4%	30.0%	22.7%	0.683
• Oxygen Saturation (<92%)	5.4%	30.0%	9.1%	**0.040**
Total # Abnormal Triage Vital Signs, Mean (SD)	1.3 (1.0)	1.9 (1.1)	1.4 (1.1)	0.127
Length of Stay in Minutes, Mean (SD)	393.2 (202.0)	418.0 (185.0)	396.9 (198.4)	0.718
Common Chief Complaints:				
• Shortness of Breath	25.0%	30.0%	25.8%	0.709
• Neurological	25.0%	20.0%	24.2%	0.730
• Chest Pain	14.3%	10.0%	13.6%	0.710
• Abdominal Pain	8.9%	30.0%	12.1%	0.095

Results:
Of 29,503 patients admitted through the ED during the study period, 67 patients had an RRT called within 24 hours of admission (0.2%). ED RRTs represented 33% of all RRTs called within 24 hours of admission (206) during the study period. Descriptive statistics on the patient population can be seen in Table 1. Ten ED RRTs (15%) resulted in patient death. Abnormal triage oxygen saturation (SpO2 <92%) was the only characteristic with a statistically significant (p=0.04) association with death for patients who had an RRT called.

Conclusion:
Based on this study, abnormal triage oxygen saturation was the only significant difference between those patients who survived and those who died. Further analysis is needed to delineate characteristics of patients who have RRTs compared to those who do not in order to detect predictors of poor outcomes.

Impact:
Identifying and quantifying predictors could be used to derive a clinical decision rule alerting EM physicians and admitting services of patients who may require disposition to a higher level of care.

RESEARCH COMMITTEE COMMENTARY:
There have been some recent reviews articles of various Early Warning Systems (EWS) for identifying inpatients likely to face an adverse event within 24 hours. All of these EWS use vital signs to some extent. Perhaps oxygen saturation should be added to those EWS which do not use it.
— Shu B. Chan, MD, MS, FACEP

ICEP Calendar *of* Events 2016

July 4, 2016
ICEP Office Closed
Independence Day Holiday

August 16-19, 2016
Emergency Medicine Board Review Intensive
ICEP Conference Center
Downers Grove

August 29, 2016
Education Committee Meeting
11:00 AM - 1:00 PM
ICEP Board Room
Downers Grove

September 5, 2016
ICEP Office Closed
Labor Day Holiday

September 7, 2016
EMS Committee Meeting
11:00 AM - 1:00 PM
ICEP Board Room
Downers Grove

September 7, 2016
EMS Forum
1:00 PM - 3:00 PM
ICEP Conference Center
Downers Grove

September 9-10, 2016
Oral Board Review Courses
Chicago O'Hare Marriott
Chicago

September 12, 2016
ITLS Illinois Advisory Committee Meeting
10:00 AM - 12:00 PM
ICEP Conference Center
Downers Grove

September 26, 2016
Finance Committee Meeting
9:30 AM - 10:30 AM
ICEP Board Room
Downers Grove

September 26, 2016
Board of Directors Meeting
10:30 AM - 2:30 PM
ICEP Board Room
Downers Grove

September 29, 2016
Resident Career Day
Northwestern Memorial Hospital, Chicago

September 30, 2016
Emergent Procedures Simulation Skills Lab
Grainger Center for Simulation and Education, Evanston Hospital, Evanston

November 15, 2016
EM4LIFE 2016 LLSA Article Review Course
ICEP Conference Center
Downers Grove

November 24-25, 2016
ICEP Office Closed
Thanksgiving Holiday

November 28, 2016
Education Committee Meeting
11:00 AM - 1:00 PM
ICEP Board Room
Downers Grove

November 30, 2016
Ultrasound for Emergency Medicine Workshop
ICEP Conference Center
Downers Grove

December 7, 2016
EMS Committee Meeting
11:00 AM - 1:00 PM
ICEP Board Room
Downers Grove

December 7, 2016
EMS Forum
1:00 PM - 3:00 PM
ICEP Conference Center
Downers Grove

December 9, 2016
ITLS Illinois Advisory Committee Meeting
10:00 AM - 12:00 PM
ICEP Conference Center
Downers Grove

December 12, 2016
Finance Committee Meeting
9:30 AM - 10:30 AM
ICEP Board Room
Downers Grove

December 12, 2016
Board of Directors Meeting
10:30 AM - 2:30 PM
ICEP Board Room
Downers Grove